MERICAN BEEJOURNAL

1913





Finding Three Queens in One Swarm







PUBLISHED MONTHLY BY

American Bee Journal

1st Nat'l Bank Bldg. Hamilton, Illinois

IMPORTANT NOTICE

THE SUBSCRIPTION PRICE of this Journal is \$1.00 a year, in the United States of America and Mexico; in Canada, \$1.10; and in all other countries in the Postal Union, 25 cents a year extra for postage. Sample copy free.

THE WRAPPER-LABEL DATE indicates the end of the month to which your subscription is paid. For instance, "dec13" on your label shows that it is paid to the end of December, 1913.

SUBSCRIPTION RECEIPTS.—We do not send a receipt for money sent us to pay subscription, but change the date on your address-label, which shows that the money has been received and credited.

Advertising Rate, Per Agate Line, 15c.

14 lines make one inch. Nothing less than 4 lines accepted. DISCOUNTS:

3 times 14c a line o times 11c a line 6 " 12c " (1 yr.) 10c a line

Reading Notices, 25 cents, count line. Goes to press the 25th of the preceding month.

Celebrated Queens Direct from Italy

Bees More Beautiful, More Gentle, More Industrious, Long Tongued, The Best Honey-Gatherers.

PRIZES:—VI Swiss Agricultural Exposition, Berne, 1805. Swiss National Exposition, Geneva, 1806. Bee-Keeping Exhibition, Liege Belgium, 1806. Bee-Keeping Exhibition, Frankfort O. M. (Germany). Convention of the German, Austrian and Hungarian Bee-Keepers, August, 1907.

Universal Exposition St. Land.

Universal Exposition, St. Louis, U.S.A., 1904, HIGHEST AWARD

Extra Breeding Queens, \$3.00; Selected, \$2.00; Fertilized, \$1.50; lower prices per dozen or more Queens, Safearrivalguaranteed. Write

Member of the National Bee-National Bee-Keepers' Ass'n Italian Switzerland.

This country, politically, Switzerland Republic, lies geographically in Italy, and possesses the best kind of bees known.

Please mention Am. Bee Journal when writing.

Big Money Growing Helianti, the new "wonder plant."
Beats ginseng or anything else that grows. Thrives in any soil or climate. Write for full particulars. Burgess thing else that grows. Thrives in any sc climate. Write for full particulars. Bur Seed & Plant Co., 3 A. B., Allegan, Mich.

ES Foot-Power



and what - Farshy of Char-son, N. N., says: "We cut with one of your Combined Machines, lead winner 50 chaff hives with 7-in cap, 100 honey-racks, 500 broad-frames 6,000 honey-boxes, and a great desi-of other work. This winner we have could the amount of bes-hives, 6to, bo make, and we expect to do it with this Saw. It will do all you say is will." Catalog and price-list free

Address, W. F. & JOHN BARNES 996 Raby St. Roskieck, 111.

That question has been argued "time and again," but it doesn't worry me one-half so much as does another question,

CAN YOU SEE? MUCH

How many people there are to look and how few there are to see and to think. The best realms for good seeing are in nature.

The Guide to Nature

tells you how.

It teaches people to see the wonders and beauties of nature.

\$1.00 per year

10c a single copy

EDWARD F. BIGELOW, Editor The Agassiz Association, Inc.,

ARCADIA: Sound Beach, Connecticut

For Both Extracted and Comb Honey

Would like to hear from those having Fancy and Number One Comb Honey. State best price delivered Cincinnati. We want Extracted Honey, No lot too large or too small for us. We remit the very day shipment is received.

THE FRED W. MUTH COMPANY

"The Busy Bee-Men"

204 Walnut Street,

CINCINNATI, OHIO

P. S.-Ship us your old comb and let us render them for you. Our process extracts the last drop of wax from the slumgum. We make money for you' if you will ship us your old combs and cappings for rendering. particulars.

Consideration of the contract of the contract

BEE KEEPERS :-

We manufacture Millions of Sections every year that are as good as the best. The CHEAPEST for the Quality; BEST for the Price. If you buy them once, you will buy again.

> We also manufacture Hives, Brood-Frames, Section-Holders and Shipping-Cases.

Our Catalog is free for the asking.

Marshfield Mfg. Co.,

Marshfield, Wis.







This is a 64-page and cover pamphlet. 54 x8½ inches in size, and printed on very fine paper. It is illustrated with over 30 beautiful pictures, all relating to bee-keeping. Its object is to inter-est people in the use of honey as a daily food. It contains a lot of infor-mation about the uses of honey, and a copy of it put in the hands of any per-son should make a good honey customer of him.

Besides the honey information, it contains three bee-keepers' songs, the words of all three having been written by Hon. Eugene Secor, of Iowa, and the music of one of the songs was writ-ten by Dr. C. C. Miller. The songs

are these:

"The Hum of the Bees in the Apple-Tree Bloom."

"The Bee-Keepers' Lullaby."

"Buckwheat Cakes and Honey."

The music alone is worth the price of the booklet.

SPECIAL PRICES

The regular postpaid price of "Honey-Money Stories" is 25 cents, but I will mail one copy for 15 cents, two copies for 25 cents, or 5 copies for 50 cents. If wanted by express, charges not prepaid, I will send 10 or more copies at 5 cents each. Better send for 10 copies as a trial. You will want more. weigh about 5 copies to the pound.

A Muth Bee-Veil for 65c

I have several dozens of the Muth wire-and-cloth Bee-Veils—a dandy veil —which I will mail for 65 cents each. Order quick if you want one before all are gone.

Wilder's "Southern Bee-Culture"

This is a 50-cent book which I will mail for 30 cents so long as they last.

Danzenbaker Bee-Smoker

The \$1.00 postpaid size I will mail for only 80 cents. It's a fine beesmoker. Order at once if you want one.

Your Name and Address on a Rubber Stamp

It is a nice thing to have a rubber stamp with your name and address. You can then stamp the letters you write, or the envelops you use, or anything at the bottom of the booklets, "Honey as a Health Food," for stamping your name and address.

I can furnish you a Rubber Stamp, with your name and address, at the following prices, postpaid, the stamp being 2½ inches long:

One Line Stamp......30 cents Two Ink Pad (21/2 x31/4 inches)..15

All orders will have prompt and careful attention. Address,

> GEORGE W. YORK Sandpoint, Idaho

Untested ITALIAN QUEEN-BEES

OUR STANDARD-BRED

6 Queens for \$4.50; 3 for \$2.75; 1 for \$1.00

For a number of years we have been sending out to bee-keepers exceptionally fine Untested Italian Queens purely mated, and all right in every respected. Here is what a few of those who received our Queens have to say about them.



AMERICAN BEE JOURNAL—
Gentlemen:—Last October I purchased three queens of you for my experiments with different queens, and wish to ask you if queens of this season will be of this stock? One of the Queens is the most remarkable queen I ever owned for prolificness, which she transmits to all her daughters.

Riddle, Oreg., July 4, 1012.

L. W. Wells.

American Bee Journal—
Gentlemen:—The queen you sent me came in good condition. She was one of the best I have ever bought. I have her introduced and she is doing business as if to the manor born I want another of those beautiful queens as soon as I can possibly get it for making up my fair exhibit. Please send a fine one. Such queens certainly advertise your business.

Darlington, Wis., July 31, 1012.

C. R. BRIDGMAN.



AMERICAN BEE JOURNAL—
Gentlemen:—I bought a queen of you about 35 years ago, and from her I Italianized 150 colonies of the finest beauties of unusual good qualities. I lived near Milton Center, Ohio, at the time.
Yours truly,
Portales, New Mexico, July 10, 1912.

J. W. HOUTZ.



We usually begin mailing Queens in May, and continue thereafter on the plan of "first come first served." The price of one of our Untested Queens alone is \$1.00. or with the old American Bee Journal for one year, both for \$1.60. Three Queens (without Bee Journal) would be \$2.75, or six for \$4.50. Full instructions for introducing are sent with each Queen, being printed on the underside of the address card on the mailing-cage. You cannot do better than to get one or more of our fine Standard-bred Queens.

Bee Journal, Hamilton, Illinois. American



SPECIAL PRICES

Honey packages and bottles either round or octagon, with American Metal Screw Can.

We are closing out our stock, and the above prices will hold good only while the stock lasts.

We will ship from Detroit, Mich., or Minneapolis.

Basswood Shipping Cases

One-piece cover and bottom, complete with 2-inch glass, paper, nails, corrugated paper, or no-drip strips in the bottom. Prices, f. o. b. Minneapolis.

5-Gallon Square Tin Cans

1¾-inch screw cap opening, 10 boxes, 2 cans in a box. \$7.50
1¾-inch screw cap opening, 10 boxes, 1 can in a box. 450

Friction-Top Cans, F. O. B. Chicago

 Io-lb., with bail, per 100.
 \$6.50

 5-lb., with bail, per 100.
 4.75

 5-lb., with bail, per 200.
 9.00

Minnesota Bee-Supply Co., - Minneapolis Minnesota







Make Your Hens Lay
You can double your egg yield by feeding fresh-cut, raw bone. It wontains over four times as much egg-making material as grain and takes the place of bugs and worms in fowns' diet. That's why it

MANN'S MODEL BONE CUTTER

Must saily and rapidly all large and small bones with adhering meat and gristle. Automatically adapts to your strength. Never clogs. Sent on 10 Days' Free Triel. No money down. Send for our free books today.

F. W. MANN CO.

Box 348

MILFORD, MASS.

PAILS

Honey Syrups Sorghum Etc., Etc.

GILLE MFG. CO., Dept.S., Kansas City, Me.



Tennessee-Bred QUEENS

41 years' experience in Queen-Rearing Breed 3-band Italians ONLY

I am at last up with all contracts, and can fill orders by return mail—2 to 5 dozen daily. Prices remainder of season:

Untested, one for 75c; six, \$4.00; twelve, \$7.50. Tested, double these prices. The very best BREEDER, \$10; Select breeder, \$5.00. Write for prices on larger orders.

John M. Davis, Spring Hill, Tennessee

Dr. Peiro will continue to give the readers of the American Bee Journal free advice regarding the subject of SURGICAL and MEDICAL treatment. Many have availed themselves of this offer. Return postage is all you need to send. Address, Dr. Peiro, 4536 Perry Street, Chicago, Ill.



Cash for Your Honey at Your Door

The committee in charge of the Honey-Producers' League Fund has \$604, to be used in advertising uses of honey, and to create more demand for honey. They have purchased several thousand books entited, "The Use of Honey in Cooking," with chapters on "What is Honey?" "Food Value of Honey;" "How Comb and Extracted Honey is Produced;" "Why Honey Granulates, and How to Liquefy the Same;" "Why Different Flavors of Honey from Different Flowers;" "Why Use Honey in Cooking in Place of Sugar;" "Where to Keep Honey," and over one hundred recipes for the use of honey in cooking, candies, cough syrups, creams, and soaps—58 pages of valuable information.

If you want a home market for more honey than you produce, get some of these recipe books and use judgment in giving them to those you believe will use honey for table and cooking, asking each to give it a trial.

I have talked with bee-keepers of several States who have been thus using these books for their customers, and who now have to buy honey to finish filling orders. To get these books before consumers, I will **GIVE** them to bee-keepers and members of the National Bee-Keepers' Association who may ask for them, provided they will pay postage on the books ordered, and who will, in application, state the number of colonies of bees they had in the spring of 1913, and pounds of comb and extracted honey produced this season, and prices they are selling at.

Postage on the books is 68 cents for 100 copies. Other lots in proportion. If bee-keepers want a growing home market for all their honey, here is a chance to get it for nothing. When this one lot of books is gone, others getting them later will have to pay publishers \$4.50 per 100 copies.

N. E. FRANCE,

Platteville, Wisconsin

Chairman of League Fund Committee



(Entered as second-class matter at the Post-Office at Hamilton, Ill., under Act of March 8, 1879.)

Published Monthly at \$1.00 a Year, by American Bee Journal, First National Bank Building

C. P. DADANT, Editor. DR. C. C. MILLER, Associate Editor.

HAMILTON, ILL., OCTOBER, 1913

Vol. LIII.-No. 10



EDITORIAL (COMMENTS

Distance Drones Fly

Regarding the editorial under this heading in the August number, it is evident, from the testimonials of Swiss and Savoyard apiarists, that there is a great difference in the length of flight in different localities or directions, and that this depends upon the configuration of the land. Hilly, woody regions permit of the flight of bees up and down the valleys at long range, but less across the steep bluffs. This is rational, and the reverse could hardly be expected. Better proof of this can be had in mountainous countries than almost anywhere else.

Flour for Uniting

The use of flour in uniting bees, although little used in this country, is much esteemed by some bee-keepers across the water. In Leipziger Bienenzeitung a writer tells of his success. A colony that had swarmed became drone-rearing (laying workers). He shook the bees from their combs upon the bottom of the hive, and with a little flour dusted them until all were powdered. Upon these he shook a nucleus with a good queen, dusted also, and then gave them some better combs. Gradually the diminutive drones disappeared, and a good colony resulted.

In the 2 or 3 years since that time he has caged no queen in introducing. He merely drops her on the pile of powdered bees struggling on the bottom of the hive, and has never had a failure.

Red Clover Bees

Since July 1 this locality has had scarcely a drop of rain. White clover is suffering, and unless the weather changes soon it will be hard on next season's clover crop. The second crop of red clover has come up since the last rainfall, and as its blossoms were very short the bees were able to reach the nectar. Near-by fields wree covered with bees, and every one's colonies are now the real Red Clover Strain. Although it is a step forward to breed for long-tongued bees, we have yet to see the first colony of bees that will work consistently on red clover.

During this drouth many of our readers no doubt will be led to believe they have Red Clover Bees. Before coming to a conclusion, we would advise them to wait until next year and test those colonies on the first red clover blossoms.

Potato Vines in Europe

The tales of a traveler sometimes read so as to leave one in doubt about his veracity. So if some of the readers are dubious concerning the following statement, I will not hold a grudge. I would not have believed it myself:

In a little village of Savoy, near Albertville, I visited an apiary of some 20 hives placed at the rear of a vegetable garden. A patch of exceedingly vigorous potatoes attracted my attention. I walked to the middle of it and stood by a potato stem which reached to the uppermost button of my vest, 51 inches from the ground. The spot is sheltered against high winds, else the potato vine would have been laid low by the breeze long before I saw it.

Honey League to Distribute **Booklets**

We wish to call the attention of our readers to the rare opportunity they have to push their honey sales by taking advantage of the offer by Mr. N. E. France on the opposite page.

A number of years ago a considerable amount of money was contributed by bee-keepers and supply dealers for the purpose of advertising honey generally. This fund was placed in the hands of a committee with power to use it for the purpose for which it was contributed. There remains of this fund over \$600, which the committee has decided to use as explained.

The publishers' price on these books is \$4.50 per hundred. They may be obtained through Mr. France for paying postage of 68 cents per hundred on

Mailing Old Combs

Many parties are sending their old combs by mail to be rendered intobeeswax. One such shipment, weigh ing about 11 pounds, came through the mail and was literally devoured by moth. The postmaster, on emptying the mail bag, spilled moth worms all over the post-office desks and floor. The packages of newspapers which were in the same bag were filled with moth, the worms having even devoured a part of the newspapers. It is remarkable in how short a time these worms do so much damage.

We warn our readers not to ship combs by mail except during the winter months. Unless they have been

treated with sulphur or carbon dioxide, it is much better not to ship combs at all except during the colder months of the year. When shipments have to travel by freight they are so long on the way that very often the entire consignment becomes devoured by the moth before destination is reached. Another such experience as the above would likely cause the postal authorities to bar old combs from the mails.

A Little Gain in Gathering and a Big Gain in Surplus

Not infrequently one hears it said: "My bees gathered twice as much this year as last," or "Some of my colonies this year gathered four times as much as others." This shows carelessness of expression or else wrong thinking. It is nothing uncommon to get twice as much surplus from the same apiary in one year as in another; and it is equally common to find in the same apiary colonies which store four times as much surplus as others; but probably very few have ever had twice as much honey gathered in one year as in another, and still fewer have had four times as much gathered by one colony as another in the same season, or indeed in two different seasons.

The truth is that there is carelessness as to discriminating between what a colony gathers and what it stores as surplus. And the probability is that not every one has any clear idea of the great difference there is between these two things. If we were to get down to the bottom thought of a great many, it would be something like this: "The honey a colony gathers is stored as surplus. Come to think of it, of course 20 or 30 pounds of it is used as winter stores; but the little that the bees otherwise devote to their own use is a negligible quantity." Instead of this, the amount of stores consumed in winter is much the smaller part of the entire year's consumption. Adrian Getaz computes that it requires 200 pounds of honey to support a colony for an entire year. So if a colony stores 50 pounds of surplus, it must gather 200 pounds plus the 50 pounds of surplus, or 250 pounds in all. In other words, the 50 pounds of surplus is only a fifth of the whole amount gathered by the bees. That 200 pounds is a fixed charge upon the businessan "overhead charge," as business men say-and it must first be taken out before any surplus can be reckoned.

With these views in mind, it is easy to see that to double the amount of surplus stored it is by no means necessary to double the amount of honey—

or nectar, if you please—gathered by the bees. The same may be said about increasing to any other degree.

Let us do a little figuring. Suppose we have a colony that in a given season is capable of storing 100 pounds of surplus. To do this it must gather 200 pounds plus 10 pounds, or 210 pounds. Then suppose we requeen it with a queen of stock capable of gathering a little more nectar-say 10 percent more. Instead of gathering 210 pounds merely, it will gather 10 percent more than 210 pounds, or 231 pounds. As it requires only 200 pounds of that for its own quota, it will store the other 31 pounds as surplus. That 31 pounds is 210 percent more than the former 10 pounds. So by increasing the efficiency 10 percent we increase the surplus 210 percent. In other words, by getting the bees to gather a tenth more, they will store as surplus a little more than three times as much.

If we operate with a colony storing more at the start, the figures will not be so striking. For instance, if we have a colony storing 50 pounds of surplus (being obliged to gather 250 pounds in order to accomplish this); and we then change queens so as to get it to gather 10 percent more, it will then have 75 pounds left for storage, or an increase of 50 percent. But although the proportionate increase is not as large as in the former case, the absolute gain is more, for we now have a gain of 25 pounds as against the former gain of 21 pounds. Similarly it will be found in all cases that the more our colony lays up in supers in the first place, the greater will the absolute gain in surplus be with an increased efficiency of 10 percent in

There are probably hundreds of cases in which the proper change of queens would increase the efficiency not only 10 percent, but 20 to 40 percent. Then there are other cases where the chance for improvement is less. Take a strain of bees that averages one year with another 50 pounds of surplus per colony, requiring the gathering of 250 pounds. Suppose a change of queens increases the gathering efficiency 5 percent. Then the bees will gather 12½ pounds more, and every ounce of that 121/2 pounds will go to swell the surplus. So by getting the bees to gather only a twentieth more, we can put a fourth more money into our pockets.

"Well, what of it?" do you say. This, that if every bee-keeper realized fully what a large amount of increase in his crops would result from a little in-

crease in the efficiency of his bees, he would make it one of his highest aims, if not his very highest aim, to improve constantly by every means in his power the gathering quality of his bees.

C. C. M.

Away Down South in Dixie

In September number of the American Bee Journal Dr. Miller criticises the bee-keeper who gives a report of his honey crop but fails to state whether the number of pounds of honey he got was extracted, bulk comb, or comb.

Yet in the face of it all, Mr. J. J. Wilder, in the Dixie department, this number, tells that his crop for the year will be two hundred thousand pounds. We happen to know that it is a little comb, a little bulk comb, and a little extracted. Yet if we did not know this, Mr. Wilder might well be excused for this little slip. Any man who can state that he has harvested two hundred thousand pounds of honey in a single season has a right to report it as he chooses, be it comb, extracted, strained, separated or what not.

Two hundred thousand pounds, nearly seventeen thousand gallons; enough to spread honey one-sixteenth of an inch deep all over a pancake made in a one-hundred-and-eighty-acre skillet—nearly seven carloads of sweetness. One engine could hardly pull it across the divide over into California, where the medium-sized bee-keepers are.

What is more, we are told in the same department that Mr. Wilder isn't through yet; just fairly begun. More out-apiaries are to be started, more skillets added, more cars filled. Hats off to Dixie and the man who is making it sweeter.

Decoy Hives

Very few if any of our readers are unacquainted with the practice of decoying ducks by means either of tame birds or of wooden decoys. Yet how many have ever thought of applying the principle to a swarm of bees?

We wish to call the attention of our readers to the article in this issue by Dr. A. F. Bonney, entitled "Decoy Hives." Although he modestly assumes that the veteran bee-keeper can profit but little by the description, yet we are inclined to believe that there are many, even among those, who do not realize the value of such hives scattered in and about an apiary. Swarming time is a busy time for the bee-keeper, and swarms are apt to be overlooked or allowed to escape in the rush of other apiary or farm work.

Aside from the fact that these decoy

S. e

T

25

of

te

of

b,

is

ar

S.

le

x-

is.

or

an

n-

a

it

d,

ly

gh

an

in

let

SS.

SS

re

he

n't re

re

ats

k-

re

le-

me

OW

ng

111

by

oy

as-

an

yet ere do

ves

ry.

the

be

the

coy

American Bee Journal 🖟

nives may be the means of capturing swarms which would have made off for the woods, or of catching those issuing either from bee-trees or from some neighboring apiary, there is the added advantage that many of the swarms issuing will enter the decoys, easy of access, whereas otherwise they may cluster in the highest branch of the tallest tree, as is generally the case when the bee-keeper is the busiest.

In the fall is a good time to get these hives in readiness for the next season. Weak or queenless colonies are broken up or united now, and the poorest combs sorted out. These poor combs, if left in the decoy hives over winter, are practically immune to the bee-moth for a good share of the following summer; at least until the swarming fever is over. This applies, of course, to that section of the country where there is sufficient cold weather to destroy the moth and its eggs. In the South, the combs will have to be made moth proof in some other manner.

As an illustration of the efficiency of decoy hives, besides the one mentioned in Dr. Bonney's article, two California bee-keepers wrote of their experiences with these during the spring of 1912. One man caught 67 swarms in his decovs, while the other had increased his number of colonies by 34 in the same manner. On page 316, September American Bee Journal, Rev. Geo. A. Hood tells of an Illinois bee-keeper who put up 15 decoys and caught 13 swarms the same season.

In all probability the success is greatest where the vicinity is well supplied with bees. Most likely the percentage of increase in this manner will also be largest in a wooded country where modern bee-keeping is yet in its infancy; for in such localities the percentage of swarming is usually the largest, as is the number of colonies housed in bee-trees.

We recommend the decoy hive to all our readers. Get a few decoys ready this fall, use old combs as baits; the older the comb the better. Place the hives in and about your apiary, or outapiary if you have one. Have them 10 feet or more from the ground in well chosen places, and watch results.

White Clover in Europe

Mr. Crépieux, of Rouen, writes us as follows:

"In the American Bee Journal of August, page 258, you speak of my observations concerning white clover along the roadways. I have not said



APIARY OF JOHN REID, OF GLASGOW, SCOTLAND



ANOTHER VIEW OF A SCOTTISH APIARY

that the bees never went upon it, but only that the white clover of the road-side, which is here in rather large quantities, gives no appreciable quantity of crop. It is rarely that we see bees upon it, and when we do see them, the result is nil. I have sometimes traveled several kilometers without seeing a single bee upon it. The day upon which you came, the hive on scales showed a loss of 300 grams.

That was the result of the work upon clover bloom that you witnessed.'

We must acknowledge that all through France and Switzerland, as far as visited, the verdict is the same. The white clover, which is a good honey plant both in America and England, is not a honey producer on the European continent.

MISCELLANEOUS (NEWS ITEMS



Ontario Buckwheat Honey Crop Report.—The crop report committee of the Ontario Bee-Keepers' Association met on Thursday, Sept. 4. to consider the crop of buckwheat honey. It was found that 252 members had reported

239,400 pounds from 10,463 colonies being an average of 23 pounds per colony. This is about the same average as last year, and the committee advises members to ask the same price as was obtained in 1912, i. e., 71/2 to 81/2 cents

her pound, wholesale, depending upon the size of package and the quantity sold in one order. No buckwheat honey should be retailed for less than 10 cents per pound.

The white honey situation is practically unchanged. A great deal of the crop had already been sold at prices recommended by the committee.

Bee-Keeping at the Massachusetts Agricultural College.-Since bee-keepers are demanding more and more of the apicultural service at the Massachusetts Agricultural College, it has become necessary to increase the size of the apiary, and to carry on lines of work not originally contemplated. This normal enlargement of the plans is a pleasant expression of the interest in apiculture in northeastern United States. To meet these demands, Mr. John L. Byard, formerly of Southboro, Mass., and Deputy Apiary Inspector since 1911, has been appointed superintendent of the apiary, beginning Sept. 1.

Mr. Byard's life long experience with bees began with his father, a veteran bee-keeper and bee-hunter in Vermont. In 1888, Mr. Byard moved to Southboro, taking with him 5 colonies of bees, since which time he has maintained a large apiary, and has become widely known as an experienced and successful bee-keeper of the locality. He has also been active in the beekeepers' associations of the State, having been president for three years of the Worcester County Bee-Keepers' Association. He is now president of the State Bee-Keepers' Association of Massachusetts. These activities, together with his extensive inspection work, has gained for him a large acquaintance with the bee-keepers, many of whom are indebted to him for encouragement and enthusiasm.

Mr. Byard's services will be confined largely to the maintenance of the apiary and its equipment. He will also assist in the laboratory and demonstrational work with the students, and at institutes and conventions. The appointment should afford services to eastern bee-keepers heretofore impossible to render.

Adulterated White and Alsike Clover Seed.—According to the United States Department of Agriculture there is being imported into the United States from Europe a mixture of two kinds of seeds very similar in general appearance to a mixture of white and alsike clover seeds. The report goes on to state that "the seeds are slightly smaller than those of alsike or white clover, but can be easily distinguished

under a magnifying glass by their rough surface as contrasted with the smooth surface of alsike and white clover seed.

"This mixture has no recognized commercial value in this country, and will doubtless either be sold as white and alsike clover seed or used as an adulterant of these seeds.

"Some of this seed has been imported at a price approximately one-half that of alsike and one-fourth that of white clover seed, and an attempt has been made to sell it as a mixture of white and alsike clover.

"All purchasers of mixtures of white and alsike clover seed should examine them carefully to see that they are free from this seed."

Railroad Rates in Cuba on Honey.— According to the railway tariffs of Cuba, extracted honey at present takes second class rates. Mr. D. W. Millar, one of our correspondents in that country, is making an effort to have the rate changed to fourth or fifth class, as it is in this country.

Exporting Honey from New Zealand.

The National Bee-Keepers' Association of New Zealand is at present exploiting England as a market for its extracted honey. Members may send samples to the headquarters of the Association. If satisfactory, the government grades the honey when it comes in. Then it is shipped out in standard cases, a large lot at a time.

The first shipments made in July will, in all probability, be enough of a success to encourage the scheme. Already cables from England have been re-



HIS FIRST EXPERIENCE. "WHY, I SUPPOSED THEY WOULD BITE, BUT THEY DON'T."



"THEY ARE NOT SO BAD. I THINK I'LL GET BETTER ACQUAINTED,"

ceived by the Association, which offered 9 cents per pound for extracted honey. This is a much better price than can be obtained in the local markets of New Zealand.

European or American ?-Mr. J. Tinsley, writing in the Bee-Keepers' Gazette for September, says:

"For many years I have had a warm corner in my heart for Italian bees, but it is only during the last two years that I have used them extensively for experimental purposes in the treatment of foul brood and Isle of Wight dis-eases. During the last 10 years I have examined many thousands of colonies in all parts of the country, and I have never yet met with a case of foul brood where a pure Italian queen was at the head of affairs, neither have I known an Italian colony" with the Isle of Wight disease.

Our doubts about its being anything

but the European variety are dispelled however, when Mr. Tinsley goes on to state further along in the article, after advising formalin as a treatment, that "if the cure is to be quick, dethrone the queen and introduce an Italian mother. I have seen diseased portions of the cells cleaned absolutely to make room for a prolific Italian queen. Her energy is wonderful, and she seems to exercise a magnetic influence in arousing the colony from its state of lethargy."

Tarred Roads and Bee-Diseases in Europe.—A newspaper of the British Isles traces the abundance of Isle of Wight disease to the fact that many of the roads in that section have been

Too bad we haven't some explana-

tion for European and American foul brood in this country.

Prices High in South Africa. - According to the South African Poultry Magazine, the following prices were paid for honey by consumers in Johannesburg during July:

Z.																						4
																						4
Z.			*		*	*		*														6
á	Ζ.	z	z	Z	z	Z	Z	Z	2	2	Z	2	2	Z	Z	Z	Z	Z	Z	Z	2	EXTRACTED IN BOTTLES.

8 oz..... 36c

No Appropriation for Texas Bee-Keeping.-A recent letter from the Texas State Entomologist reads as follows:

"The special session of the Texas Legislature which was in session during July and August, did not make any appropriation for the continuation of foul brood eradication work in this State. Accordingly we are without funds for continuing our fight on beediseases during the next two years.

We have an excellent new law on the subject of disease eradication which was enacted at the regular session of the Legislature last winter, but I fear we will not accomplish much with no funds to continue this work.
"WILMON NEWELL."

It is to be regretted that this appropriation failed to be allowed. With as live an association as Texas has, however, we have no doubt but that their efforts will secure the needed funds at the next meeting of their Legislature. Untiring and united effort is what

Iowa Bee-Keepers to Meet in December.-According to advice just received from its secretary, S. W. Snyder, the Iowa State Bee-Keepers' Association will hold its meeting in Des Moines, Dec. 10, 11, and 12.

Mr. Snyder is already arranging the program. From the enthusiasm at the meeting last year, and the interest displayed since, we have little doubt but that this will be one of the live meetings of the year. Particulars and program will appear in a later number.

Clover Prospects. - The extreme drouth of the Central States has been broken during the last few weeks, Reports from most sections indicate considerable rainfall. Although clover has been damaged to no little extent by the dry weather, there is enough left in most of the Central States to indicate at least a fair growth for next year.

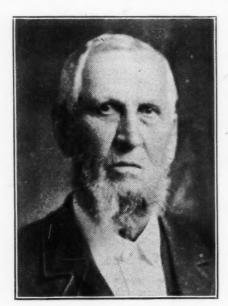
Missouri, Kansas, southern Illinois

and southern Indiana seem to have experienced the greatest drouth. In northern Illinois and in Iowa the crop has been large and prolonged. In nearly all instances bee-keepers agree that bees are going into winter quarters in the best possible shape; plenty of good stores and lots of young bees.

Death of William Bader .- On Aug. 6, 1913, at Oklahoma City, occurred the death of Mr. William Bader, age nearly 87 years.

Mr. Bader's early life was spent in Schuyler Co., Ill. He had much to do with the early history of this section of the State, and was well known; the town of Bader was named in his honor.

Although a very busy bee-man, Mr. Bader always found time for caring for his own bees and for helping others engaged in this industry. On one of



THE LATE WILLIAM BADER.

his visits to the State of his birth, Ohio, he enjoyed a visit with Mr. L. L. Langstroth.

The latter years of his life were spent in Oklahoma City. It was while caring for his bees there that he was stricken with paralysis from which he never recovered, dying within a year.

Fires in California.—There have been very damaging forest fires in Riverside Co., Calif., late this summer. To one unacquainted with the California country; to one not familiar with the nature of the undergrowth in the sage country, it would seem that such fires could be easily kept within certain bounds. This is not the case, however, and it requires the efforts of hundreds of men to keep the fire from

spreading. The writer recalls a short hunting trip in southern California. The quails were so thick that you could "knock them down with a stick," but, alas! the undergrowth was nearly impenetrable.

The Western Honey Bee comments on the fires as follows:

"Many erroneous reports have been published regarding the fire, but a trip over the 40 or 50 miles of devastated territory makes it plain that this is the worst fire that has ever visited this section of Riverside county.

"The fire running westward is confined to the heavy growth of underbrush, and will do a great deal of damage. Thomas Rawson, a bee-rancher, lost a large apiary in the fire this evening, and the residence of Mrs. Rosa Miller was burned, together with a large amount of hay and other pro-

"The fire will reach its worst to-morrow, when it is feared it will burn through the big cattle ranches of the Tripps, Bergmans, and Magees, and numerous other small ranchers living in the sage country. Year by year these fire losses are cleaning out the best of our old-time ranges, and it would seem that it will only be a question of time

when the acreage of sage, sumace buckwheat, wild alfalfa, etc., will be reduced to such an extent that the big honey production of southern California will be a thing of the past.'

Northern Illinois and Southern Wisconsin Meeting.—The meeting of the Northern Illinois and Southern Wisconsin Bee-Keepers' Association will be held in the Court House at Freeport, Ill., on Oct. 21.

All interested in bee-keeping are cordially invited to attend.

B. KENNEDY, Sec.

Illinois State Meeting .- The 23d annual meeting of the Illinois State Bee-Keepers' Association will be held at State House in Springfield Nov. 5 and 6.

Prizes of \$5.00, \$4.00, \$3.00 and \$2.00 will be given for the first, second, third and fourth best articles of not to exceed 500 words. See page 83 of the last (12th) annual report, or write the secretary for particulars. No limit to qualifications.

The report of this meeting will go to make up a good part of our 13th annual report, so let us make it a good one. Further notice will be given to members. JAS. A. STONE, Sec.



BEE-KEEPING (FOR WOMEN

Conducted by MISS EMMA M. WILSON, Marengo, Ill.

What a Woman Can Do in Bee-Keeping

My son takes the American Bee Journal and keeps bees. He is not very well, and I would be glad to help him with the bees if I could learn how. He has a photograph gallery, but can work only part of the time as he needs fresh air.

I want to learn bee-keeping so I can help him in place of a hired man. Do women do much work with bees? KANSAS.

You may rest assured that not only can women do part of the work at beekeeping, but they can do, and do, in many cases, all the work. The only dan-ger in your case is that if you become interested and efficient at the work you may do so much of it that your son may be crowded out from the full advantage of the outdoor life that bee-keeping affords. But your maternal heart will look out for that.

There is a good deal of work, however, that is not necessarily done outdoors, and you could probably do all of that. Still, there is one thing out-doors that might naturally fall to your care as a matter of convenience. That is watching for swarms, provided you allow the bees to swarm naturally. You could have an eye out for that-or, rather, an ear open for it-and could no doubt break in upon your household duties at any time long enough to hive a swarm, while it might be very

inconvenient for your son to do so during the time occupied at his calling. Like enough, however, he may prefer not to allow natural swarming to any extent, preferring artificial increase.

If you produce comb honey, you can do all the work of preparing the supers and sections, such work generally being done indoors. It can be done in winter or early spring, and in some respects that is the better time, for it isn't the nicest thing to put foundation in sections on a hot day when the foundation, soft with the heat, crumples under your fingers. When the sections are taken off, you can scrape them ready for market, and the deft fingers of a woman are generally better for such work than those of a man.

If you produce extracted honey, you can do the uncapping, or you can turn the extractor, and you can see to hav-ing the honey put up neatly in cans, jars, or whatever containers you use.

Whether you work for comb or extracted, you can do any or all of the work of putting foundation in broodframes and getting the hives ready for increase.

Beside all this, there is a way in which you may be a very big help in a direction you may not have thought of. If your son is built like bee-keepers in general, one of the things that he greatly longs for is some one with whom to talk bees; some one who can talk intelligently about them, and

especially one who can listen intelligently to what he has to say, and to discuss with him his plans. Even if you did nothing but this, and never touched a finger to the work, it would be worth a lot to him. To prepare you rightly for this, make a study of one or more good books on bee-keeping, such as Langstroth's. And if at any time you feel the need to consult some one of more experience than yourself, or have any inquiries to make about anything you come across in your reading, it will be a real pleasure to answer in the department for women in the American Bee Journal any questions you may have to ask.

Look Out for Looks

The other day, at a county fair in a neighboring county, the first premium on comb honey was taken by sections that had never been scraped or cleaned in any way, but with all the bee-glue upon them, just as they were taken from the hives. That did not speak very well for the good taste and enterprise of—somebody. Let us hope it was not a woman, for women are supposed to average just a bit better in the matter of taste than the members of the sterner sex.

Whatever may or may not be the case as to the comparative eating quality of comb and extracted, the probability is that in a great majority of cases the consumer is willing to pay the higher price for comb just because of its looks. And the more nicely a section is cleaned the stronger the appeal in the matter of looks.

Some claim that it is better to have a section just as it left the hive, so that the purchaser may think it real honey made by the bees, and not an affair manufactured by man. Whatever may have been true in the past, in these days of pure-food laws there is no need to make such an appeal to the ignorance of consumers. Nor is it necessary to have wings or bodies of dead bees in extracted honey in order to show that it is genuine honey made by the bees.

by the bees.

Whether you produce comb or extracted, look out for looks.

Observation Hives

What do you think of my putting a swarm of bees in an observation hive next spring? Will bees do as well in an observatory hive as in any other hive? What will such a hive cost?

(MRS.) Belle Everett.

The probability is that an observation hive will be a source of much interest to you, and that you will thereby learn some things that you would not otherwise learn. It will never fail to interest visitors to be able to sit in a house and watch the bees at work without the possibility of danger from stings.

For \$9.00 you can get an 8-frame observation hive, complete with super, including frames, sections, and glass on sides and ends, with shutters to cover the glass; the wood oiled and varnished so as to make an attractive piece of furniture. For \$3.50 you can

get an observation hive with one frame. Bees will do as well in an 8-frame observation hive as in an ordinary 8-frame hive. With only one frame, as you would naturally expect, they will not do so well, and the frame of brood must be renewed every week or 10 days. From that you will see that it is not an easy thing to keep the one-frame hive going through the winter, while some are quite successful in keeping a larger number of frames summer and winter.

While the hive with only a single frame is not a very permanent affair, the chance for satisfactory observation is many times greater than in a hive filled with 8 frames. With glass on both sides of the single frame, you can at any time see all that is going on at any part of the comb; and especially you can at any time point out the queen, for she is likely to be the central point of interest. With 8 frames you can see only the outer face of the two outer combs. Generally there will be no brood to be seen on these two outside faces, as they will contain only honey and pollen; so the queen will have no object in visiting them, and the work of the bees in caring for the eggs and larvæ can never be seen.

Possibly you may prefer to have one of your regular hives made into an observation hive. It is a very simple matter. Any mechanic can cut out nearly all of one side of the hive, and put in a large pane of glass, or you can have glass put on all sides, and there

you are with a hive that will allow you to see about all that you can see with the more expensive hive.

On the whole, there is not so very much advantage in having glass on more than the one side. Then you can have only a single frame in the hive, or you can have any number of frames up to the full capacity. With a single frame in the hive you can see the one side of that frame, and if there is any special reason for seeing the other side, as for instance the construction of a queen-cell on that other side, it is an easy thing to turn the frame end for end. Then if you wish you can have two frames in the hive, giving you still an excellent chance for observation, while allowing the frames to last without renewal much more than twice as long as with a single frame. From that you can increase the number of frames as you wish; each increase making the colony more permanent, but lessening the chance for observation.

Of course a dummy or division-board must be in the hive when it is not filled with frames, and a board or cloth must cover the glass when not under observation, for bees do not like to have constant exposure to the light. Your hive still remains available for use in the apiary the same as in any other hive. Indeed, for your own personal observation, you may prefer to keep the hive in the apiary, running it only through the warm season.



E. D. Nichols and his comb-honey packing stand, grading rules on board at top, sample sections in rack below. Like honey is packed together correctly,







HOME-MADE SUPERS OF MR NICHOLS.

FAR WESTERN BEE-KEEPING

Conducted by WESLEY FOSTER. Soulder. Colo.

With a Progressive Bee-Keeper

I recently spent a very pleasant day with Mr. E. D. Nichols, of Montrose. His home is several miles below Montrose, and is a homestead under the Gunnison tunnel irrigation project. He has a very pleasant home with bath and hot and cold water. The obstacles in the way of having these conveniences would have discouraged many a man, but Mr. Nichols has proven that he can make some things go that others think hardly possible. He has demonstrated that a bee-keeper can successfully rear good queens by the most approved methods and produce a crop at the same time. Most of his bees are at his home yard, and a very neat and well cared for apiary it is. He has a far better shop and honey house than the average bee-man, and gets his shop work done with dispatch because of having things well arranged.

A gasoline engine runs his saw and extractor. One soon realizes what a convenience a saw is when the various appliances Mr. Nichols has made are seen. He has made every part of a bee-hive, but I do not think he practices making all his supplies now.

Only those supplies that he can economically make are sawed out, the residue be buys.

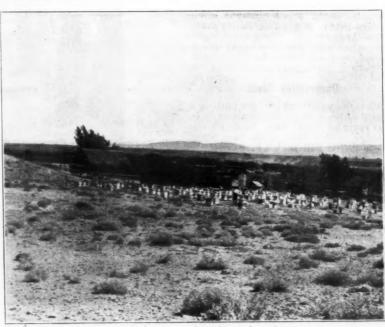
By looking at the illustrations you can realize that Mr. Nichols is determined to have things so he can get his work done well and on time. His honey crop was a fair one and of good quality. He had already harvested it when I visited him in August.

Fall Conditions in Colorado

The honey-flow has lasted well into September in northern Colorado, which is unusual, as in ordinary years Aug. 15 to 25 sees the close of surplus honey storing; in comb honey supers at least. But this year the bees have been busy on the alfalfa later, and while the nights have been too cool for comb-building, what supers were well stored will nearly all be finished. The bee-keeper who has many unfinished sections this year in the northern district, is not the bee-keeper he should be. The honey-flow closed earlier than usual in the Arkansas valley, about Aug. 20, finishing the alfalfa surplus Sweet clover was nearly through blossoming by Aug. 25, having seeded heavily, so that what honey has come since then has been alfalfa. While alfalfa has yielded well, the rosin weed had little attention from the bees.

Many bee-men have utilized this late flow by taking one or two combs of honey from the brood-chamber and filling in with full sheets of foundation or drawn combs. This has been a very favorable year for such a procedure, as September has been warm enough for drawing comb and storing honey in the brood-chamber, though little could

be done in the surplus chambers above. In many of my hives the extracting supers and full-depth supers with full sheets of foundation put on above have been unoccupied, while the combs pn in the brood-chamber have been quict



APIARY AND HOME OF E. D. NICHOLS, AT MONTROSE COLO

filled with honey and brood, and the full sheets have been drawn into combs in a very few days.

Wintering should not be a serious problem this year, as the quality of stores is good, and breeding has been above normal since the main flow waned in late August. Early in Sep-

tember I had many colonies with brood in every frame. These were 8-frame in every frame. These were 8-frame hives, however. It was not true of the 10-frames.

The third growth of alfalfa has furnished nectar this year, which is un-When alfalfa seeds well you can count that it also furnished honey. except for a very small opening at top and bottom through which bees may

enter almost singly and remove what little honey remains on the frames.

In scraping the frames, close attention is paid to get the underside of the top-bar smooth and clean, so that the sheets of foundation that may be put in later will fit snugly to the top-bar. The rest of the frames, on the inside surface, need not be cleaned so particular!y, as the bees will build the subsequent combs back to the wood again. In fact, it is an advantage to have the combs attached to the wood where the comb honey is hauled many miles to the packing house from the yards. The outside of all the frames should be scraped clean, however, so that there may be a minimum of bur combs built. When these are numerous they prove a nuisance, as they prevent rapid handling of the comb-honey supers, and also result in mashing many bees. When these bur combs are filled with honey, as they sometimes are during a good honey-flow, the broken honey makes things disagreeable. Such a condition also often results in stirring up robbing, and hence should be prevented, if possible.

If it is desired to put foundation in the shallow frames as rapidly as the honey is cut out, all the frames, after they have been scraped clean, are washed off by plunging them up and down in a large tub or vat of water. After being rinsed off they are thrown out and scattered to dry, being careful not to leave them in the hot sun any length of time, as it may twist and warp the wet frames into all kinds of shapes. When dry they are hung back in the supers, and are ready for the foundation sheets. Without the washing they are very sticky, and it is disagreeable to handle them when putting

in the foundation sheets. The shallow extracting combs are placed back into supers as they come out of the extractor. The supers are then taken out into the yard, preferably some little distance from the apiary, and stacked up in high piles, the same way as we do with the shallow supers with the frames from which the honey has been cut. Very small openings are left at the bottom and top of each stack of supers, being careful that these are so small that only one bee can pass at

By this slow method of having them cleaned out there is little danger of the usual uproar, and besides the combs are not likely to be damaged by the bees. After they are clean and dry they may be set back on the colonies needing them, or if it is late in the season they may be removed to the storehouse for winter. Care must be taken, however, that they are closed tight enough so that mice may not enter and destroy the combs. It is not customary to store extracting combs here in the South, but these are kept on the colonies during the winter; sometimes four and five of them piled on one colony.

It is a mistake to pile the wet supers

of combs or the besmeared frames in supers anywhere the bees can have free access to them. The uproar caused by the bees is not only disagreeable, but the bees may cause trouble by stinging people. This is especially to be guard-



Mr. Nichols' Separator Cleaner. See the railroad iron on top to give pressure to the cleaning knives.

SOUTHERN



Conducted by Louis H. Scholl, New Braunfels, Tex.

Cleaning the Shallow Bulk Comb Honey Frames and Extracting Combs

"What do you do with your frames after cutting out the honey? Mine always have more or less honey 'messed' on them. How do you manage to get rid of this sticky condition when the time comes to put foundation in them again? Also with the wet extracting combs, do you do anything with them or just let them alone? Last year I filled my supers out in the yard and let the bees clean them, but it caused an uproar. My bees are too near the road for that. My supers are all stacked in my honey-house with the wet extracting and bulk comb honey

frames in them. Will it do to let them stay that way?' PORTER C. WARD. Elkton, Ky.

There are various methods of disposing of frames employed by different bee-keepers. Our method is as follows: After the comb honey is cut from the shallow frames, in the comb honey house, another person with a somewhat dull knife scrapes the remaining comb and honey, together with the bur or brace combs, off the wood into a strainer tub. The honey is drained from these comb scrapings which then go into the solar wax-ex-The scraped frames are then tractor. hung back in the supers, which are taken out into the back yard and stacked up. They are closed bee-tight

ed against when the apiary is located near a thoroughfare or a highway. Aside from these dangers there is always more or less disaster in the api-The demoralization has a tendency to wear out bee-life to a considerable extent, and consequently leave the colonies in a weaker condition. This is more apparent in the late fall, especially when there is no honey coming in, and thus the colonies may go into winter quarters in an unsatisfactory condition and result in bad wintering. Many weak colonies may be robbed out entirely before the apiarist discovers the trouble.

Where we can safely do so, and that is any time when some honey is coming in so that bees are not inclined to start robbing, we place all our extracting supers with the wet combs right back on the hives. This is done at dusk, however, and reasonable care is taken to have the outside of the supers clean by having been rapidly washed off with a wet cloth as they are removed from the honey-house. Put on at this time of the day it gives the bees a chance to clean up and get over the first excitement. By the next morning they will have quieted down sufficiently to guard the entrances, and there will be no trouble about robbers molesting any but very weak colonies. Indeed, no weak colonies should receive such supers of combs. It would be better to first place several of the wet supers on

the strongest colonies, and then remove them to the weak colonies as needed, after they have been cleaned.

Handling Fragile Combs of Honey and Brood

When examining newly-built or other combs that may break out easily, especially during warm weather, we practice handling them as illustrated herewith. The method of the different passes is self-explanatory as shown by the figures.

The trick of handling all combs in this way soon becomes a kind of second nature to the operator, and prevents many disagreeable mishaps to combs. When the comb is removed from the hive the surface in front of the operator is examined first. Then an upright swinging motion is made by the left hand, raising the comb into vertical position, at the same time twirling the bottom-bar around to the right of the operator, as shown in No. Bringing the right hand up, the comb is before the operator upside down, and the opposite side from that already examined is before him for inspection. When returning the comb to the hive, the exact reverse motions bring it into place. Care should be taken not to tilt the combs sidewise, but at all times during the operation to keep them on edge.

the clover. Then a prolonged drough followed, with the result that it was badly stunted and soon dried up. ture No. 1 shows all the colonies with but one super each; a few in the back row having two, while one has three. The other view shows nearly all with two supers, while many have three-both pictures were taken on the same day. The bees from the east that were wintered inside, while in good shape in the spring, were about ten days behind the other lot, and when they were in shape for the honey-flow it was already

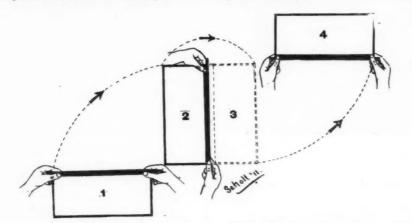
nearly over.

The other picture shows the motor boat we have on the river near this apiary, my father being seated near the end of the boat at the right side. boat has been very useful. Any one situated near a navigable river, in a good honey location, would have an ideal place for running out-yards. Unfortunately the river is not navigable east from our apiary, and it is only 2 miles west to the apiary, so we cannot establish out-apiaries to be visited by boat. We are situated 5 miles from the nearest town, and this town is on the stream near the apiary. The boat the stream near the apiary. The boat comes in very handy for hauling groceries and other supplies, for the helpers there do their own cooking and general housekeeping. The boat gives many hours of recreation after a day's work, when they get time to go on the water for a few hours, incidentally

doing a little fishing.

A few days ago my father went up the bay some distance, and with the help of another boat, towed some 5000 feet of lumber in a raft down to the yard, said lumber to be used for making winter cases. All things considered, where the navigable waters are at hand, this means of conveyance has an automobile beaten, as the question of roads does not bother the boat, and on this inland stream no storms are ever of a serious nature. The boat illustrated is 24 feet long, and has a 3-horse power engine. It will run 8 miles an hour, and if we ever desire more speed, a larger engine can be put in any time, as the hull is heavy enough to accommodate one of 7 or 8 horse

power easily.



SCHOLL'S METHOD OF HANDLING A FRAME.



Conducted by J. L. Byer, Mt. Joy, Ontario.

Results of Moving Bees-Wintering

The readers of the American Bee Journal may remember that I moved 240 colonies of bees last May over 250 miles by train, and that I promised to give a picture of the bees in their new location. The views given were taken during the honey season. This fall 380 colonies will go into winter quarters all in one yard. They are to be wintered outdoors even if the location is 100 miles north of Toronto. Picture No. 1 shows most of the bees that were

moved in two cars in the spring, and No. 2 shows the lot that were wintered outdoors last winter, and where they are now.

There is often much discussion as to the merits of wintering outdoors and inside, and while seasons differ much in this respect, there is no question but that last spring, bees that were wintered well outdoors, outstripped cellar-wintered bees in the storing of The season for clover about surplus. The season for clover about this yard was very short on account of late spring and frosts badly damaging

Brood-Chambers Well Filled

We are busy (Sept. 10) extracting our buckwheat honey. In our locality, owing to prolonged drouth, the crop is short and will not average over 25 pounds to the colony. Last fall the brood-nests were very light, and the feeding bill was heavy, but for some reason this fall the reverse is the case. While the surplus is not great, the very heavy brood-nests are pleasing. In fact, I have not had the brood-nests so heavy in years. The honey in them was all gathered during the hot, dry weather, and I have no fear of leaving it for wintering.

Judging from letters from different parts of Ontario, this condition is general, and it looks as though much less sugar will have to be fed than last fall. While colonies invariably winter well when fed heavily on sugar syrup, I am always pleased to see the hives well filled with natural stores, so that feeding is avoided. In years like the presh

c-

k e. h

ne

re

in

d

in

ly or is

is

an nole

ot

by

m

on

o-

nd

es

he lly

up

he

000 he

idire

on

nd

oat

3-

8 ire

gh

rse

ity,

the

me

ise.

erv

In

SO

em

dry

ing

ent

en-

fall.

vell am

vell

ed-

res-

American Bee Journal

ent, when all the honey is well ripened and sealed, I prefer the natural stores to sugar, especially in the spring, if we have spells of cold weather with no pollen coming in.

The Honey Market

At present the honey market is dragging. Peaches and other fruit are abundant, and the very tight money market is no doubt somewhat influencing the western trade. Personally, if I had much honey unsold I would not sacrifice it at a lower price than ruling quotations, but would wait for later sales, as I believe conditions will improve. Some have cut prices. This makes buyers hold off in the hope that others may do likewise. Other crops are splendid, and I think we can expect a better demand from our western trade when farmers begin to realize on their produce. The existing situation forcibly reminds us that as bee-keepers we lack system in marketing. With proper distribution all the honey in Ontario could be placed at once at reasonable prices.

The Direct Plan of Introducing

Further trials of the Arthur C. Miller plan of introducing queens have given uniformly good results, and it looks as though we have a good thing in the way of a simple and reasonably safe plan of introducing queens, while at the same time all danger of foul brood being given to a colony, through the medium of infected food in the mailing cages, is avoided. Just here I might remark that the one I let get away from me at the entrance of a hive "never came back," and to be real sure of not repeating the trick again I now remove the queen from the mailing cage and place her in a wire-cloth of about an inch in diameter. In this way one can see the queen at all times, and there is no trouble in getting her safely in at the entrance of the colony.



No. 1 .- Two CARLOADS OF BEES



No. 2.—The Bees Which Were Wintered Out-of-doors.

BEE-KEEPING



Conducted by J. J. WILDER, Cordele, Ga.

A Good Season

This has been my biggest season. We have had to work in a great rush nearly all the time to keep up. The general foreman of all my bees has put in his appearance at "headquarters" but once since February, and only remained a short time then.

I saw him once since at one of my Florida apiaries. He came while I was there, shook hands, examined the apiary, and went on. "I will stay right with the bees and see that they do not lack attention; the harvest will be great," he said. He has had a broad field to cover, and has worked nearly all the time from daylight to dark.

The harvest has been great. Packing

and shipping has been going on for some time, and yet the honey taken can hardly be missed from the hives. If we do not tip the scales at 200,000 pounds of honey, at least we will not miss it far. Nearly all the honey is No. 1 or fancy.

I can include my name in the list of happy bee-keepers. I am proud of my calling (bee-keeping).

Opportunities Pass On

A traveling man once described the enterprise of a certain little progressive town. When he got off the train he noticed a sign on a restaurant, "Open Day and Night." On the oppo-

site corner was an eating place with the sign, "We Never Sleep." He looked in another direction and saw a Chinese laundry. Here the sign read, "Me Wakee, Too."

This town was in a new and very fertile section, and the inhabitants knew that opportunities awaited them. They were awake, seizing each opportunity as it presented itself.

tunity as it presented itself.

The average bee-keeper is so situated. If he falls asleep the opportunity will escape. I know of more than a score of bee-keepers surrounded by good territory for bees, who, if they would stock even a part of the adjacent country, would get returns which would make their life much easier.

I sincerely hope that each season will see a greater awakening, among the bee-keepers of Dixie at least, and such an awakening is bound to occur if we follow the motto as it read over the Chinese laundry, "Me Wakee, Too."

Planning

After a good season, such as we have had, when one is feeling elated

over his progress, is a good time to start planning for next year. If we plan now for next season, we will be ready for the rush when it comes, and our plans will be easily put into practice. Do not think of failure for one moment, but keep your aspirations far above even the chances of failure.

I have endeavored, and am endeavoring, to have a plan in all my work, especially in apiary work. The amount of increase to be made at different apiaries, together with all other needed changes for next season, have already been mapped out. Papers of instructions will be finished and turned over to the general foreman very shortly. He will see that all the needed supplies, etc., are gotten and put in readiness. When the time comes for putting the plans in operation, things will be easily, quickly, and well done.

Dixie's Climate and Opportunities for Bee-Kneping

In point of climate there is perhaps no section of the country so greatly blessed as ours. The Blue Ridge mountains afford great opportunities to those who wish to live in a cool, high altitude, and enjoy the fresh mountain air and the pure sparkling water as it gushes from the mountain side. They can also enjoy the delicious fruits, such as apples, peaches, grapes, plums, etc., which are grown in the valleys. Also, those who desire may live in a warm climate of low altitude, where there is no frost, and the weather is sunny and balmy during all the winter months. They may enjoy the delicious semi-tropical fruits, such as orange, tangerine, grape-fruit, etc.

No country can be more ideal in point of climate. But what about the opportunities for bee-keeping in this country? Perhaps no country has as great a variety of surplus yielding honey-plants as ours. If it is desired to make bee-keeping a sole business, it can be done almost anywhere with a little capital invested in bees properly cared for.

I have just returned from a trip through the Blue Ridge mountains, and was surprised to find so many different kinds of honey-plants there. The mountains are not barren, but are covered with a dense growth of trees and shrubbery. The greater part of the forests consist of honey-producing trees, such as chestnut, chincapin, locust, sourwood and poplar. There are also fruit-trees in the valleys, and asters all over the waste land. The asters · are the last blossoms giving a good winter stores. I flow for was also surprised to find so many bees scattered over the mountains, and to know that they did so well. The honey is of fine quality; but modern hives, conveniences and methods are almost unknown to those mountaineers. cut shows a mountaineer, his apiary, and corner of his apple orchard, the trees of which are laden with fruit. This place is located in a narrow valley on the side of a mountain.



THE MOTOR BOAT USED BY MR. BYER.

CONTRIBUTED ARTICLES~

Points in Cellar-Wintering

BY DR. C. C. MILLER.

SUBMITTED to Dr. E. F. Phillips what I had written about cellaring bees, and am glad to give some interesting comments from him, with some added comments of my own. Dr. Phillips' words are given in quotation marks.

"If outdoor wintering is preferable, if optional, why not plant an evergreen windbreak? Landscape gardeners have long recognized the advantage of evergreens over a solid windbreak, and bee-keepers are finally learning the same thing. Furthermore, don't we put our bees in the cellar to give them protection chiefly against low temperatures, but also against wind? If cellars do not afford this protection, doesn't this argue for a defect in our cellars for which there may be a remedy?"

Yes, evergreens would likely solve the problem, or even deciduous trees in sufficient number, as in large orchards.

Cellars do afford protection against wind. If they do not against cold to a sufficient degree, we have the remedy in heating the cellar.

"In determining the optimum cellar temperature, a wide range of temperature should be tried. Assuming that 45 degrees Fahr. is best, a bee-keeper who tested temperatures from 32 degrees Fahr. to 40 degrees Fahr. would never get it."

"In your discussion you use the word "quietness" as applying only to

sound. Perhaps the absence of motion is more important. Bees can be working hard to produce heat with little noise, and after all it is work we are trying to prevent."

Certainly it is the motion of the bees that is important. The noise is only an index of activity. But I have always supposed that in the cellar the noise of the bees was exactly in proportion to their activity. And certainly the noise is the only thing I have to gauge their activity. I cannot see them; only hear them. If you say "bees can be working hard to produce heat with little noise," and at other times working not so hard but with more noise, I'm ready to take your word for it, but it will be something of a wrench.

"In your observations on temperatures at different levels, the thermometer placed on the top of a hive was doubtless influenced by the heat from the colony, and did not therefore record exactly the temperature of the air at that level."

Your idea is that the thermometer was affected by the direct conduction of heat from the hive-cover. There was less of that than you might think. The cover was one with a dead-air space, so a very poor conductor. I don't know, but I suppose that very nearly the same difference would have shown if the thermometer had been entirely isolated from the cover. Would not the air be slowly rising with the heat of the hives, and would not each hive add its quota of heat? But most surely the thermometer should have been isolated, which shows



A TYPICAL APIARY IN THE MOUNTAINS OF THE SOUTHEAST.

I'm somewhat raw in the matter of ex-

"The greater difference between upper and lower temperatures when the cellar was closed was doubtless due to the absence of circulation of air.

"I doubt whether the absence of mold on combs is influenced by light in the cellar. Your cellar is exceptionally dry, and I should expect this to be the important factor since the combs in a hive are certainly in a dark enough place for mold to thrive were other conditions right for its growth. The inside of a hive outdoors is dark enough for mold to grow."

I interviewed, separately, three experienced house-keepers, asking "What causes mold?" Two of them answered, "Dampness." The third said, "Dampness and heat." Neither said a word ness and heat." Neither said a word about darkness. I don't know as much

as I thought I did.

"Why do bees consume more stores why do bees consume more stores at higher temperatures? I find this statement in "Fifty Years," and also in this article and that is something which does not harmonize with our theories (may be the theories are wrong). I should like to have you present the data available on this point has not been generally claimed. In your experience of 1902-3 (page 316, "Fifty Years"), the bees were kept out-doors until Dec. 8, and doubtless consumed stores rapidly before you took sumed stores rapidly before you took them in. Mr. Demuth says the spring of 1903 began warm, and bees reared brood abundantly. (See Gleanings editorial for 1903, page 375.) It then became quite cold, and the bees died rapidly. (See also editorial in Gleanings, 1904, page 432.) Has this greater consumption continued since 1903-4? What about the quality of stores during the two winters, 1902-3 and 1903-4? If by chance they were partly honeydew or otherwise inferior that might account for increased consumption.

Dr. Phillips, you ask too many questions. And you make them too hard. I supposed I was entirely orthodox in assuming that when the point of greatest quietude was found, any rise above that temperature was followed by a corresponding increase of activity, and consequently by increased consumption of stores. When the cellar becomes very warm, the bees become very noisy. That is one of the times when the activity of the bees cannot only be heard but seen. They are all stirred up and run all over the hive. Is it not generally held, at least of late years, that bees consume more stores in the South than in localities not too far up in the North?

As to whether the greater consumption has continued since 1903-4, it is a hard thing to be positive about the amount of stores consumed. I have no exact data, but I feel pretty sure that it has continued, and that last winter, 1912-13, the bees consumed as much in stores as in any former year, and they wintered in fine condition. So far as I know, stores and conditions were all right, only it would have been per-haps better if the cellar had not been quite so warm.

I do not know that my bees have had any honey-dew in winter since the furnace was put in. Marengo, Ill.

Notes on European Bee-Keeping

BY C. P. DADANT.

have now been two weeks in Switzerland, and I am writing this letter on the desk of our good friend Mr. Gubler, editor of the Bulletin D'Apiculture, who is also the manager of the Orphans' Home of Neuchatel, and has some 50 boys in his care. The Home is a country farm at the foot of a mountain, in a delightful spot, within less than a mile of the Lake of Neuchatel, a beautiful blue sheet of water some 25 miles long. Here is also an apiary of some 60 colonies, run for honey production; extracted honey of There is no demand for comb honey, and a school teacher of Mont, who has three large apiaries, told me the other day that section honey was difficult to sell on account of its higher price. Since the cost of production is greater on comb honey, they cannot afford to sell it as cheaply as the other, and the economizing Swiss consumer prefers to buy the extracted honey.

It is most probable that the reason of the preference here of the Swiss bees over the Italians, lies in the difference of the climate. One can readily perceive a most striking change, even in a few hundred feet within Switzerland. For instance, the road from Geneva to Lausanne and beyond, along the sunny shores of Lake Leman, is surrounded on all sides by vineyards, in shelves one above the other as far as the eye can reach. A few miles beyond Lausanne the railroad line to Berne turns northward and crosses the tunnel of Cornallaz, 1617 feet in length, and you find yourself on the opposite slope of the mountain, among pastures and woods without a trace of vine-yards. It is too cool there for grape production. However, apiaries abound in the villages and by the farm houses; not large apiaries, but clusters of 2 to In hives; all modern frame hives; sometimes sheltered in a house apiary, but oftener simply protected tinned roof.

Those Swiss bees are accustomed evidently to the cool climate, and are more careful than the Italian bees, who, I am told, start too early for the field and remain too late, thereby often falling chilled to the ground not to rise again. Here, at Boudry, at this warm period of the year, the middle of August, I have been able to go about in such clothes as I wear in Illinois in November. Often in the evening, about sunset, a cool breeze, which they call the "joran," blows suddenly from the mountain, and would appear to us Americans as a decided indication of a morning freeze. But no frost comes, and the next day is again pleasant.

During the two weeks past, we have been visiting slopes, from the warm vineyards above mentioned to the snow peaks that never lose their white coat. Mr. Bertrand, former editor of the "Revue Internationale," who has entirely retired from active life, invited us to his home in the mountain, at Gryon, and we spent 3 delightful days there. I have forwarded a view of his chalet, which will appear in the Bee Journal. From there you can see the

snow peaks above and a village beneath your feet, with the public road looking like a slender white thread through the green. The houses are mainly built of pine wood, which is never painted, but allowed to season in the light and become of a dark chest-nut color. The roofs extend 4 to 6 feet, and even more, so that the eaves shelter the sides of the building from the weather, and porches are often built all around, with a balustrade well sheltered from the rain. The red til eroofs of a village make pretty spots in the pines, when you are a mile or so above them.

We are to attend a bee-keepers' meeting this afternoon, and I will have more to say by and by. Apiaries are generally small, but bee-keepers are numerous, and the bee-associations of Switzerland number over 10,000 members. There is no doubt that they are a progressive nation. They have many improvements which we are only beginning to consider in America. A very important one is the State Fire Insurance. No house is permitted to to be built unless a stone stairway is made to the upper stories as a life protection. Have we ever thought of such a safety precaution in America?

Switzerland, in the summer, is a wonderful tourists' resort. They are there by the hundreds of thousands, from all parts of the world, and it is a Babel of tongues, among which German, French and English are most prominent. Everywhere are large hotels, and every spot is arranged for the convenience of the travelers. In every hotel honey is served for breakfast. I am told much of this honey is artificial. In every instance but one, however, I believe we were furnished with the pure article.

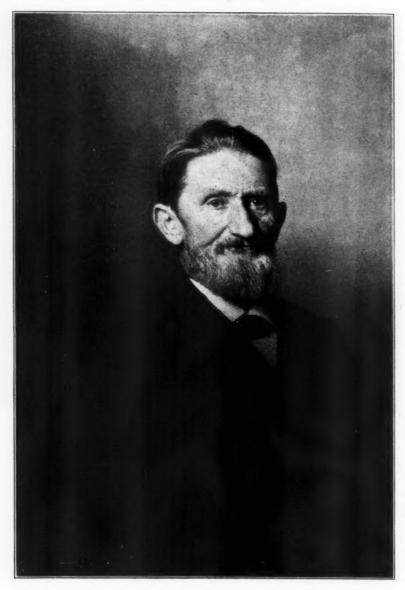
The honey crop is very small, and the price is high. Fruit is a failure, both in France and here, owing to the late frost in May, which appears to have been very general over central and western Europe. America is not the only country to have reverses of temperature. But it is never so cold here, nor so hot, as in Illinois.

VISIT WITH MR. GUBLER.

We have now left the hospitable roof of the Boudry Orphans' Home to continue our trip. It would be impossible to express the hearty feeling which this visit left us. Aside from the pleasure of meeting nearly a hundred beekeepers of the Neuchatel Association, and being present at a banquet in our honor, we have spent with Mr. Gubler several pleasant days.

This man, who is nearing his 78th birthday, has for some 40 years been the manager of an institution which has proven its great usefulness. Many grown men, who are now filling useful positions in the vicinity, have been pupils of the Home. The owner of the apiary where the meeting was held, and who has in connection with his bees a large vineyard and all sorts of fruits kept in the very best manner, was a pupil of Mr. Gubler.

One would not look for very modern ideas from a man of 78. Yet Mr. Gubler is one of the most progressive thinkers I have ever met. On the way to an apiary owned by a Mr. Bonhôte,



MR. ULRICH GUBLER.

to which I will again refer, he showed me, on a height, a beautiful spot overlooking the lake. For a long time this spot, which is now covered with beautiful villas, was neglected. In the middle ages the gibbet was kept there, and long after the disappearance of this ugly sign of human cruelty, the spot retained an unpleasant renown.

But now it is forgotten, and our good friend expatiated on the difference in methods of rendering justice between the long-ago and the present. Not only were many criminals put to death, but they had placed the gibbet on the most conspicuous spot, with the mistaken idea that this frightened the criminals. Now the capital punishment is abolished in that region, and crimes are almost unknown. But even where capital punishment is still existing, society is so ashamed of it that the execution of criminals is carried on in the strictest secrecy. It is hardly within the province of a Bee Journal to mention these subjects, yet I cannot refrain from saying that the Boudry Orphans'

Home, as it is conducted in the open country, half a mile or so from the city, with all sorts of outdoor occupation, such as farming, grape growing, horticulture and bee-keeping, is saving many waifs from a life that might have led them to crime; since orphans without means and without guardians would be in the worst possible conditions of life.

The apiary of Mr. Bonhôte, mentioned at the beginning of this article, has given me, better than a month of research, a clear idea of the difference in conditions between a country like Switzerland and our own. This apiary is located in a house, with openings on all four sides. Mr. Bonhôte keeps very complete and accurate records of all his crops and of each colony. From his records for 10 years past, it is evident that the hives with entrance on the north of the building are the most successful. The reverse would be the case with us. But in America, in Illinois at least, when a warm day comes, the bees are usually able to return

home, after taking flight. In Switzer-land many sunny days are so chilly that the least cloud before the sun causes the bees to perish, if they have ventured out. Thus the colonies which face north, and which are not readily lured out by a ray of sunshine, manage to save their bees, while their better exposed neighbors lose them.

In the climate of Switzerland, the great quality of the Italian bees to rise early and take flight proves a disadvantage. The common bee, which is twice, and have never been stung except when I accidentally crushed a bee in handling frames. The hybrids which are so cross in America usually, appear as quiet here as the others, and I am astonished at the steady ways of the latter. They do not rush about on the combs as they do with us; and, in fact, behave very much like our Italians. However, they do not cling so tenaciously to the combs, and, in several instances, I have seen them fall to the ground.

I am writing in rather a hurried way, for we go from one place to another every other day; but I am taking some notes, and will go over the subject again soon. I want to mention the men whom I have met, and show their faces to the reader. I will also mention some of their implements, which are like their roads and their houses, made to last and endure service.



Dear reader, we would like to tell you at once all the experiences of our But we have only 4 numbers of the American Bee Journal to do it in, while we have material for 40. only thing we can do then is to give short glimpses, reserving the bulk of our experiences for a series of "Travel Notes," which will be published if we don't tire you too much. If you can be given one hundreth of the pleasure we have had, it will be satisfactory

Last Sunday, Aug. 31, was the climax day of our trip. At the fine country home of Mr. Bertrand, on the north shore of Lake Leman, a dozen or more bee-keepers were invited to a tea in our honor. Not only were local distinguished visitors present, but Mr. Cowan, the learned editor of the British Bee Journal, and author of a number of bee-books, had seized this opportunity to visit his old-time friend. He had arrived from England that same morning; a very pleasant sur-prise to me. Mr. Cowan is a bacteriologist, a microscopist, a botanist, and a bee-keeper. He is a living, walking encyclopedia, as we found out, for he appeared to know the botanical name

of every plant, every blossom in the park, and there are many.

I cannot give here a detail of the events of that pleasant day. We hope to have a photograph which was taken by one of the guests. We will then have a more detailed account of the doings and of the discussions on bees, which took place in the afternoon.



THE ORPHANAGE CONDUCTED BY MR. GUSLER.

more accustomed to the climate, ventures out less readily and succeeds better. So we may be sure that our Italians are not to be condemned.

The farther I go the more I am convinced that our American apiarists are on the right track in seeking to keep the Italian race pure. But I should not pass full judgment until I see them in their own country, and that will be next month.

Bee-houses, such as they have here, would not do in our country. The work is too tedious in them. However, there are some very positive advan-tages. Yesterday, on the heights that overlook this large city, we visited an apiary which consists of two rooms, one for the bee-hives, the other for the implements. The owner gave us a very clear idea of what comfort it is, on a rainy day, and they are plentiful in Switzerland, to be able to extract honey or feed the bees without putting a foot out-of-doors and without fear of any robbers. Those are comforts which we cannot claim. But our methods are so much more expeditive that we can well forego the pleasure of rainy-day

Tobacco smoke is used very generally, and I have been entirely cured of the idea that tobacco irritates the bees. In nine cases out of ten, I have seen the apiarists light only a cigar as a smoker. I have used a veil only

The Carniolans are well spoken of wherever tried, but the unanimous verdict is that they swarm too much. That is a great objection for our practical apiarists who already have as many colonies as they want, but it does not seem to be an objection in German-Switzerland.



Summer home of Mr. E. Bertrand, where the editor and his wife were entertained

Everything has an end. The end came. On Tuesday we left that hospitable home with much regret. Mr. Bertrand is of nearly the same age as our own Dr. Miller. His hair is white, but his heart is young. He is 81 years young. I think he looks younger than he did in 1900, when I saw him before.

ITALIAN SWITZERLAND.

For a whole month we traveled in Switzerland leisurely, happily, going from the apiaries and the bee-keepers' homes to the snow peaks, or to the quiet lakes. On that day, Sept 2, we made a quick trip through French, German and Italian Switzerland; from the southwest corner to the extreme southeast, passing through Lucerne, for we preferred the Gothard trip to the Simplon. Of the trip by rail, we swarming over damaged grapes; a clear evidence of honey dearth, and an inkling to their possible misbehavior. But the bees were not cross.

Among the German-Swiss bee-keepers I had used no veil, but kept one in my pocket. In this instance I did the same, and inspected some 30 colonies, finding them very regular, and good-looking leather-colored Italians, just what I was looking for. I pointed to a hive and expressed a desire to open it. My host brought out his smoker, a European Bingham. These two words must suffice to describe a most clumsy imitation of the best smoker in exis-tence. Why the average European manufacturer cannot imitate the Bingham smoker in its good points is be-The spring yond my comprehension.

their rusticity. He compares the bees to human beings, and says that the peasants of the mountains are more rugged and healthier than the pampered gentlemen of the higher civiliza-tion. We had quite a little discussion over the matter, for I held for artificial selection as a chance for further im-provement. He held that the Italian bees of those mountainous regions, where the snow is neighbor to the vineclad hills and to the olive growing plains, are thereby more rugged and stronger than anywhere else. Let the reader decide. One thing is sure, Biaggi's bees can take care of them-selves. Their behavior on the combs is exactly what we are used to, in the pure bees, quick and steady, and they adhere to them magnificently.

When we took our leave we were presented with a magnificent portrait of Dzierzon, bearing his own auto-graph; a picture about 18x24. If I can bring it home safely, I propose to have

it framed for my study.

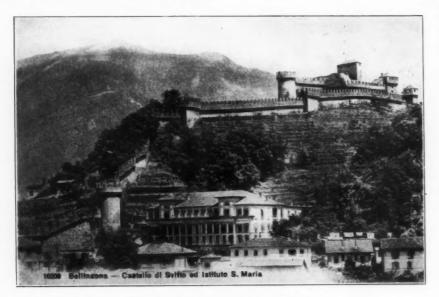
CROSSING TO ITALY.

That afternoon we traveled the whole length of Lake Maggiore, on a steam-boat with English, American, French, Italian, and even Australian tourists. Shall I speak of its beauty? Must I mention the Borromean Islands, the Isola Bella? Those are said to be the most beautiful islands on earth. But we had only a glimpse of them. How can a tourist visit much country and get more than a glimpse of each thing of beauty?

At 6 p.m. we gradually left the mountains for the plains of Lombardy. At 8 p.m., after a rush among fields, manufacturing towns, etc., we found our-selves in the immense railroad station of Milan. This city of 690,000 people is one of the white, clean cities of the world. As we entered the "bus" of the Hotel Moderne, an old gentleman jumped up from his seat on the inside and exclaimed, "Mr. Dadant, you are punctual!" It was Count Visconti, the president of the National Italian Association, who had kindly volunteered to meet us. But we did not expect him, and it was quite a surprise.

With true Italian impetuosity, he said us: "Tomorrow you are to be not to us: only our guests but our slaves. We are going to look after you, and you must do what we say.....except Madam, however (bowing to my wife), who may command us in whatever she wishes. The next day Madam is invited to breakfast with my daughter, and (smiling) she may bring her husband with her if she desires.'

So here we are. Count Visconti Di Saliceto and Dr. Triaca, the president Count Visconti Di and vice-president of the Italian association, are to act as our cicerones, and those only who are acquainted with Italian hospitality can appreciate our good luck. That is why I got up this morning at 5 o'clock to tell you about what is in store for us.



BELLINZONA, IN ITALIAN SWITZERLAND.

will speak later. It will take a special letter to tell of the kaleidoscopic changes of such a journey. We must be brief, for we want to speak of Bellin-zona and of the bees of Italian Switzer-

On Wednesday morning we awakened in a hotel of that pretty ancient city. Mr. Biaggi's brother, a very well educated Swiss Italian gentleman called upon us at 9 o'clock, to escort us to his brother's apiary in Pedevilla, a mile off, at the foot of the mountain.

We were there in 20 minutes, and found the apiary among the trellises of a vineyard. The grapes here are arranged in trellises high enough for a man to walk under, and it is very inman to walk under, and it is very interesting to see the grapes hanging over one's head. But it is not convenient for horse and plow cultivation. Nearly everything is done by hand. At the apiary my first question was, "Are your bees cross?" I had passed a fruit vendor's stall in Bellinzona a few minutes before and had noticed the bees utes before, and had noticed the bees

is hard, the bellows slanting to excess, the air connection is poor, and the hole in the nozzle so small that it allows but a very small stream of smoke.

Mr. Biaggi is one of the kind of beekeepers whom the bees do not sting, or at least do not vanquish. He opened the hive and we had found the queen, a fine young one, when a careless motion caused us to crush some bees. Then the Italian bees showed us what they could do to defend their home against careless intruders. I retreated under a grapevine and hurriedly put on my veil. But my host stood his ground, barefaced, and finally brought the bees to time so that I could continue the investigation and open another hive.

Mr. Biaggi rears some queens by our methods, taking the queen-cells from strong colonies under the swarming impulse. But most of the queens he sells are simply taken from box-hive colonies or straw skeps. He holds that the Italian bees are immune to foul brood, and that it is owing to

frames filled with comb, for which I

have provided, by putting 4 cleats on the inside of the ends to take 3 frames.

The Decoy Hive

BY DR. A. F. BONNEY.

T the suggestion of a hive manufacturer, I offer a description of the decoy hive I have used for several years with great success, making them from boxes acquired from the local stores. Old-time bee-keepers may skip all this, for I am writing for the beginner, who is often puzzled to get bees, and knows nothing about a decoy hive. Being isolated from the bee-keeping world, I never read or heard of such a thing, and had to invent it myself. I have written articles about it for the agricultural press, and have received many letters of inquiry. I think there are many who would like to know all about it.

The decoy hive was a thing of development with me. At first I used merely a box with a hole near the bot-

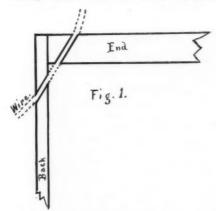
The decoy hives I now use are made as follows: From any kind of lumber, that being from store boxes is good enough, I make a box a little longer and deeper than the frames I want to use in them, and in each end, on the inside, nail 4 cleats to hold 3 frames. The box can be of any width, but 10 inches is wide enough. In one end, on back or side, I bore a hole through side and end. This is about 1/6 of an

A wire is then passed through the hole and made into a loop. I do not make this box very tight, as the bees will want ventilation.

inch in diameter, and is bored thus:

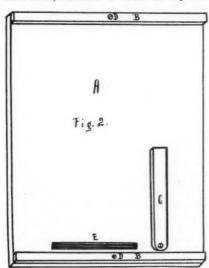
Next I cleat the cover together wit a strip on each end, on the outside Each cleat is an inch wide and % of an inch thick. In the middle of each cleat I bore a hole to engage with the center of the end pieces, then close to the bottom cleat cut a hole % of an inch wide and 6 inches long for an entrance. If there are cracks enough in the box to ventilate it well, all right, otherwise I put a couple of %-inch strips on the edge of the end boards, which, by holding up the cover, will make a crack on each edge.

Finally I cut a strip of board 8 inches long and one inch wide, drive a couple small nails in the edge close to one end to keep it from splitting, then bore a hole between them on the flat side to



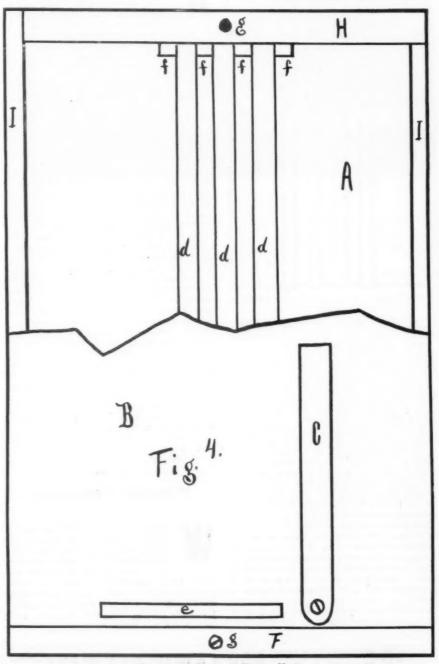
Manner of Fastening the End and Back Together.

tom for the entrance, and a wire loop by which to hang it up. As time passed I improved it by doing away with the cross-sticks our grandfathers at one time used, because I look at my de-



FRONT OF HIVE SHOWING THE ENTRANCE, A, cover; B B, cleats; C, door; E, entrance; D, screw holes.

coy hives almost daily during the swarming season, and after that is past I put into the boxes spoiled sections, those with more or less wax in them, or

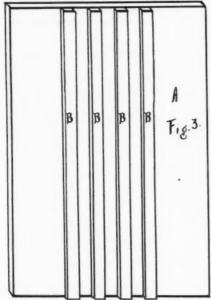


SECTIONAL VIEW OF DECOY HIVE.

A, hive. A, cover cut to show cleats f's and frames d's; H, end; II, sides; C, door; F, end cleat; gg, screw holes.

take a screw. Lay this strip over the entrance, first rounding the end, and put a screw in. This makes a door which can be raised out of the way, and it rests on the bottom cleat when closed, as the beginner will want it when it is to be taken down.

I paint my boxes with white lead, then with a small brush and black paint number the covers and boxes so that I can assemble them quickly after a busy season, for they get scant attention when empty if I do not want to put them up again at once. Of course, they can all be made to one measure, and thus be interchangeable, but to make them strictly so requires too much time and care.



INTERIOR VIEW OF END OF DECOY HIVE. A, end; B B, cleats.

One may judge of the value of these decoy hives when I state that in one season I captured 35 colonies in 20 boxes, and even this season I got 24, small swarms, in 50. The best marked of these I used to make new colonies; the others to strengthen weak ones, thus gaining 20 strong colonies at a cost of about a dollar for having the hives hauled to the grove.

These decoy hives are nice to help to take bees out of house walls by aid of a Porter bee-escape, as a small colony with a queen can be put in handy close to the entrance. I got a couple of nice colonies this season in this way. Also if one lacks hives the bees can be left in the boxes, the 3 frames put in, to be removed to a hive later on, or the bees united with another swarm.

It does not seem to make a bit of difference where the decoy hives are hung, only so they are well shaded. I have had the bees go into one that had fallen to the ground. A swarm took possession of a bee-keg well under a building; and 8 or 10 feet from the ground seems to be as well as 40, and it is a great deal easier to put them up.

The beginner should remember that the queen he gets with a swarm is apt to be old, and he should rear a new one as soon as possible, for fear the one he gets will not live over winter, which, while having no particular connection with the decoy hive, is worth knowing.

Figure 4 is a comprehensive sectional view of the decoy hive.

Buck Grove, Iowa.

Paraffine for the Inside of Hive-Bodies

BY B. KEEP.

LMOST every issue of the bee-publications contain inquiries about disinfecting hives after foul brood. The usual advice is to disinfect, and usually fire is suggested as being the most effectual. I am an enthusiastic advocate of a hot paraffine coating for the inside of the hive-body—originally to prevent absorption of dampness. Such an application acts in two ways as a disinfector; first, by reason of the heat, and second, by sealing up all germs be-yond any probable resurrection. The yond any probable resurrection. application can be made to the hivebody whether old or new, but far pref-erably to the new, clean wood, when the paraffine will sink into the wood, closing all pores against germs and moisture. I have found the benefits of hot paraffine-coated brood-chambers to be so marked that I would not now think of wintering in uncoated hivebodies, whether single or double.

At the annual meeting of the New Jersey State Bee-Keepers' Association at New Brunswick last December, Dr. Phillips being present, was asked "whether a hot application of paraffine on the inner surfaces of the hive-body would be an effectual disinfectant after foul brood?" Dr. Phillips gave it as his opinion that it would.

The hive-body, when so prepared, can be sterilized at any time by simply "ironing" with a hot flat iron. It would seem that this would be as quick, as easy, and certainly much safer than any use of fire, while property value would not suffer in the least.

As hinted at above, there is another benefit secured by the paraffine coating—the water proofing of the hive-walls—"the proof of the pudding is in the eating."

Lyndhurst. N. J.

Wisconsin Experiences

BY HARRY LATHROP.

E have had three good crops of white honey in our section in succession, and but for the severe losses of winter before last, some great crops would have been produced. There is only one thing the matter with southwest Wisconsin as a honey-producing country, and that is the lack of bees and bee-keepers. We have only a few who

devote much time to the work, and some of the real specialists have been severely handicapped. I never felt so bad for any one as I did for Sister Candler, of Cassville, when she wrote me over a year ago that her mother was sick, the work in her large apiaries behind, and no help. I would have gone over to her assistance myself if I had not been up to my neck in work. The great prosperity of other branches of farming makes it hard to get help for apiary work. Farmers pay good wages for help and then are short.

The present honey season bade fair to be the greatest in history, as both white clover and basswood promised a maximum yield. White clover yielded nobly, though cut short by extreme tion goes, the basswood made no show-ing. The hot weather seem to ripened hot weather, but as far as my observait up in a very few days. The quality of our honey, both as to color and body, is the very best. Although a large crop has been produced, I would advise holding the price up to what it was last year. My retail price for the 10-pound pail of white honey is \$1.25, and my sales are mostly made by mail. In the 60-pound cans I sell at 10 cents, can included. At these prices a beekeeper can live, and the people, including the working man and his family, can have honey to eat.

F. B. Cavanagh, of Indiana, for whom I have the greatest respect and admiration as a bee-keeper and man, says we don't get more for our honey because we don't ask more. He argues that 25 cents per pound for extracted honey, to the consumer, is a fair price. I will not take the time to argue the matter, but I venture to say that if Mr. Cavanagh was a working man with a family he could not place honey on his table as an article of food at that price—it simply can't be done. I had hoped to see honey become a staple, but it cannot if it costs the consumer more than about twice as much per pound as the cost of pure sugar syrups.

In talking with old bee-keepers who never read bee-journals or write anything for publication, one sometimes gets hold of a new idea. Here are two that I got from an old gentleman living at Elkhorn, Wis.: He says that a mixture of sulphur and table salt, a table-spoonful, placed in the entrance of each hive in cellar wintering will prevent dysentery. I shall try it at the first opportunity. He also told me of a new way of lining bees.

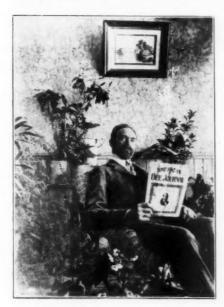
He takes a Mason jar, quart or half gallon, drills a couple of air holes in the bottom, using an old file for a drill, and holding the jar under water while working to prevent breaking. He then puts some thin honey on a sponge in the cap of the jar, and proceeds to find a bee on the range. He gets the bee into the jar and allows it to work on the honey, holding the jar bottom up. The holes in the bottom furnish air, and are necessary. As soon as the bee fills itself, it buzzes around in the

iar for a time and then settles on the side next to its home. Carry it on this line and try again. It will always settle on the side nearest the hive. In this way he says he has lined many trees with only a single bee in captivity. was an entirely new idea, and if I ever get old so as to have enough leisure time to hunt bee-trees I will try it. Bridgeport, Wis.

Bee-Keepers I Have Known— S. W. Snyder

BY FRANK C. PELLETT.

EAP YEAR ladies have overlooked a promising prospect in Simon Snyder, of Center Point, Iowa, secretary of the Iowa State Bee-Keepers' Association, and senior member of the firm of Snyder Bros. Mr. Snyder is a man of affairs, and interested in nearly every important en-



S. W. SNYDER, SECRETARY OF THE IOWA BEE-KEEPERS' ASSOCIATION.

terprise of his home community. is president of the local bank and telephone company, and has been com-pelled to decline similar positions of trust in other local enterprises.

The firm of Snyder Bros. is engaged in general farming and fruit growing on rather an extensive scale, and a number of men are employed the year around. The Snyders are prominent in Iowa horticultural circles, and the home farm is a most interesting place to one interested in horticultural subjects. In the trial orchard is to be found nearly every important variety of fruit suited to Iowa conditions. Of plums alone nearly 400 varieties are represented, besides apples, peaches, pears, grapes, berries, etc. Several fruits, grapes and berries especially, are grown on a commercial scale, and

during the fruiting season quantities of fine quality fruit are shipped to various markets.

The nursery is under the direct supervision of the younger brother, Davis Snyder, though the subject of our sketch occupies a good deal of time there, also. While Simon has a general supervision of the whole business of the firm, the apiary receives his personal attention; and although he did not tell me so, I have a secret notion that the bees helped to put some of the



BY MAJOR SHALLARD.

N page 154, May number, rules are given for grading comb honey, but I never see any for extracted, and as practically all the honey produced in Australia is of the latter variety, the former rules are not of much use to the apiarists here. I want to get a well thought-out set of points for judging or grading extracted



SNYDER BROTHERS APIARY AT CENTER POINT, IOWA.

other branches of the business on their feet in the days before success was

When Simon was a boy his father kept a few colonies of bees in boxhives on the old-time let-alone plan. On one occasion the senior Snyder was severely punished by the bees when he failed to take proper precau-tions against their stings, and he declared that he would have nothing further to do with them. He accordingly gave them to the boy Simon, who has been a bee-keeper since that day.

The Snyder apiary consists of more than 200 colonies in one yard, which is an unusually large number for one location under Iowa conditions, but the press of other work and the difficulty of securing satisfactory help prevents the operation of extensive out-The locality is good, and the apiaries. firm is considering the establishment of a system of out-apiaries if satisfacfactory men can be secured to take charge of the work.

Keepers' Association, Mr. Snyder has done effective work. At the convention in Des Moines a plan of work to be attempted by the society was outlined, and remarkable results have already been secured.

It is only on the theory that he has been too busy that I can account for the fact that Simon is a bachelor. Atlantic, Iowa.

As secretary of the Iowa State Bee-

honey. I am not making any suggestions on the matter myself, as I want, if practicable, to get the views of the most experienced-honey producers available.

The daily papers here, in the interests of the agents, quote honey from the various districts. They quote from 4 cents for one district's honey up to 8 cents for another in spite of the fact that some honey which comes from the former is quite equal to any from the latter, and some from the latter is quite as inferior as any from the former. By this means some of the agents are enabled to make returns at market-quoted rates to the producers from the cheaper district, while at the same time they sell the best honey from that district at the higher price quoted for the dearer district. In other words, they "take the producer down."

To prevent this state of things, I want to get suggestions for a set of grading rules which will be accepted by a conference of delegates from all the bee-societies in New South Wales.

I have tried on several occasions to get the papers to quote honey on its merits, no matter where it came from, but have had no luck. The trouble is that these agents are advertisers, and the honey-producers are not. My idea is to get enough producers to care enough to agitate on the matter, and keep on agitating.

Glenbrook, Australia.

Why Do Drones Go With a Swarm?

BY EDWARD F. BIGELOW.

ROM time immemorial it has been the common saying with bee-keepers and with apiarian books, that the old queen leads the swarm and leaves in the hive several unhatched queens that will in the future emerge and provide for the continuance of the colony.

That Nature should do this has al-avs seemed strange to me. That one ways seemed strange to me. That one queen should lead the body in flight and several queens remain to provide for the continued existence of the colony has suggested questions. It seems remarkable that Nature should send out say 80,000 bees, and suspend the life of all upon the life of one. If a kingbird flies into that swarm when in mid-air and swallows the queen, the bird has unquestionably destroyed the entire colony, if there is only the one queen. But it has been maintained that Nature leaves several unhatched queens within the hive to provide for similar dangers, in which case if one or more are killed several are still left. It seems strange that several queens should be provided where there is the least danger, and only one lead the flight for many miles where there are many dangers. In my own mind I have questioned many times whether it is true that Nature entrusts the continuance of the flying swarm entirely to the life of one bee.

I have from time to time heard it rumored, and even discussed by professional bee-keepers, that when the weather is unfavorable the old queen is delayed in her flight with her following until several of the virgin queens within the hive had hatched out; and that sometimes these queens hatched dur-ing the delay, accompanying the flying colony. But the question that puzzles me is, why do these virgin queens go, and especially why does the mated old queen take with her not only some vorkers, but a large number of drones If there are no virgin queens in the swarm, then Nature is doing a super-fluous thing, when she sends on a swarming flight these heavy, clumsy, slow flying drones.

It has long been my hypothesis that these drones have a purpose at such times, and that when more than one queen is found in the flying or clustering swarm, there is a purpose of extra drones in view of the exigencies and dangers of the flight. If the old mated queen is killed then there is the safeguard that one of these "extra" virgin queens will mate and take up duties of increase. If this hypothesis is not tenable, then will some one explain why the drones go with the mated queens? Back in the hive from which they came they had a possible use for several of the warmer months, but Nature kills them off when they become useless. Does it seem reasonable that a flying swarm with very limited

supplies of food would take along the drones if there is no possibility of their

If the duties of increase fall upon a virgin queen, then the drones have a decided use. Does Nature provide against accidents to the old queen? There are some things that set me to thinking along that line, although I do not yet wish to announce positive conclusions. I may be mistaken, but the circumstantial evidences are worth considering.

With that hypothesis in mind I have made some careful studies, and thus far I have found that almost invariably there are several queens in the swarming cluster, and a large number of drones. It is the presence of these drones, more than anything else, that makes me think that it is not mere chance that sends out the slowly hatching virgin queens. I recognize the fact that I am here on dangerous ground, and may bring down on my pate antagonistic verbal blows from veteran and well-informed bee-keepers, when I venture to propound the theory that Nature, at swarming time, pro-vides several queens for the flying bees as well as for the colony left at home. It is my opinion that there is no war between the queens of a colony so long as the colony is in flight or in a clustering condition, but when the bees have settled upon a home, then comes the war of the queens, and only one survives. If by chance it should be the old queen that is superseded or killed by one of the virgin queens, then the drones are present and ready to cope with the emergency.

Practically the same thing takes place in the colony left behind. eral queens are hatched, and plenty of drones are present for mating.



YOU CAN FIND A QUEEN IN EACH OF THE FOUR CLUSTERS.

aware that it may be considered almost sacrilegious to make the statement that several queens lead in this swarming flight; yet we frequently hear of two colonies going together, and they, I believe, are nothing more than two sections of one swarm, lead by two queens. Sometimes there are more than two clusters. In a recent cluster that alighted on a small willow tree, there were at least four clusters, and within each one of these little bunches was a queen with a large number of

Here, I believe, is a field for interesting and instructive investigation. The trouble is that few bee-keepers have taken the pains to examine the whole of a swarming cluster. The best of a swarming cluster. The best method to do this is to take the cluster, lay it carefully on a white sheet on a box or a table, so that the bees may spread out as one might spread out peas or beans to sort them over. Have plenty of nursery cages, so that when queens are found they may be placed In a recent colony from in captivity. which I obtained three queens, I found, upon hanging the three together, that the bees cared for only one, and let two of them die of neglect. They, several times, tried to swarm, but soon returned to their captive queen.

I am carefully investigating further, and am not yet prepared to propound the definite theory that Nature provides a number of queens and guards against the dangers of the flight; but I am more and more inclined to think that in many cases this is so. In fact, I wonder if any of our veteran bee-keepers have positive proof that in any swarming cluster there is only one queen? We all know how difficult it Much more difficult is it in a large cluster of bees. Even if I were to look for an hour in such a cluster carefully spread out, I should not be prepared to state that there is more than one queen. Finding only one does not prove that there are no more; but finding several does indicate very strongly that Nature is sending more than one with the swarm.

I shall not be convinced if you tell me that you have only one queen in your swarm. Before I can be conyour swarm. your swarm. Before I can be convinced that only one queen goes out, I want an answer to this question: Did you make prolonged careful investigation of all the bees within your swarm? I am also ready to demand that the entire swarm shall be sifted

that the entire swarm shall be sitted through a queen bee-excluder before I can be convinced that there is not more than one queen in every cluster.

Unquestionably there were a large number of drones in every swarming cluster that I have seen. But will you, old-time bee-keeper, or even young institute who keeper, or even young apiarist, who keeps his eyes open and thinks about things, tell me why those drones go out with the cluster if only the old mated queen leads the colony? Here is a field fertile for research, one in which I am working with diligence and enthusiasm, and a mind open to

more truth either from direct observation or from the experience of fellow bee-keepers.

Sound Beach, Conn.

Experiences of a Beginner

BY W. O. ROUDABUSH.

NE hot summer day about 32 years ago, when a bare-footed lad of 12, I strolled away towards a creek that came dashing down its stony course from the foot-hills of the old Blue Ridge mountains, in Greene Co., Va., in search of a pool deep enough to take a bath.

After a refreshing bath in the clear mountain stream, I started on my return home. I was walking up the banks of the stream through a corn-field, where there was an old darkey plowing corn with a mule, and was somewhat surprised to hear the old man shout, "W-h-o-a! Say, dar boy, don't you go up dat way. Dars bees up dar on dat maple bush, an dey sting you to def."

After some hard begging, I got the old fellow to come close enough, say 50 yards, to show me just where they were. And after more persuasion I finally got the old barlow knife to cut the limb; but he still insisted that I was "guine be stung to def, an Mis Mit an Mass Jake (my mother and father) guine blame me wif it." I exfather) guine blame me wif it." I ex-plained to Uncle the bees would not sting me, and promised to put off operation until he could get the mule to the other end of the field.

He shambled off down the corn row,

and I went after the bees.

His old knife was so dull it was a slow process, but I finally secured my bees and started my one-mile tramp home. I was tempted to believe the negro knew more about bees than I. Several times when I would stumble, handfuls of bees would drop off the cluster and prefer crawling up unde my pants than settling on the cluster again. I finally succeeded in getting them home, and hived them in an old box-hive (bee-gum), and my bee-keeping experience had begun.

It ended the next day about 9 o'clock with that particular swarm—they came out and put off for the woods. I was so full of enthusiasm and disappointment that my aunt gave me \$6.00 to go to a man, who kept a good many bees in the old-time Simplicity hives, and buy a fine prime swarm. After getting these home, I wrote to a friend of mine, mentioning my bees, when he sent me a bee-book and several copies of the American Bee Journal, edited then by Thomas G. Newman.

Late as it was, I ordered and safely introduced an Italian queen; and I believe now it was the first Italian queen that came into that county. When her bees began to hatch, people came for miles to see the bee I paid \$2.00 for. From some I got words of praise and encouragement; from others the opposite. A few told me I was crazy. Why is it in this world of ours that there are some people who delight in throwing, seemingly, insurmountable obsta-cles in the way of some boy or girl who has it in his or her heart to accomplish something along some particular line? But all the warnings and advice of the "Smart Alecs" only fanned the spark of enthusiasm into a flame, and each year has added more fuel until now the disease has assumed a chronic form, and I think it is incurable.

I have never been an extensive bee keeper. I never had as many as 100 colonies at one time. I have always produced comb honey, that sold on the market for 2 to 8 cents more than other honey. I have always been successful in wintering my bees, and my crop of honey is usually larger per colony than

the average for this locality.

Hagerstown, Md.

DR. MILLER'S ANSWERS-



Send Questions either to the office of the American Bee Journal or direct to DR. C. C. MILLER, MARENGO, ILL.

He does NOT answer bee-keeping questions by mail.

Bees Not Working in Supers

I have 5 colonies of bees and they are doing well as far as I can see, but they are not at work in the supers. What is the cause? and what is the remedy, if any? ILLINOIS.

Answer .- There may be several reasons why bees do not work in supers. There may not be a sufficient flow to supply more than their daily needs. The colony may not be strong enough, and you must wait until it builds up stronger. The brood-chamber may not yet be filled, and the first care of the bees is to fill all vacant room below before storing in the super. Sometimes, how

ever, the bees are slow about making a start in supers when they seem strong enough, with a good flow, and the brood-chamber filled. In that case you must put a bait in the super to bait the bees into it. Just how you will do that depends upon the character of your supers. If extracting-supers, then you can likely put into the super a frame of brood for a few days, or until the bees begin work in the adjoining frames. If you have sections in supers, then put in the center of the super a section that is partly built out, either empty or containing some honey. If you can do no better, you can cut out of one



of the brood-combs a piece of brood or honey and put it in a central section. If that will not start them to work, you may know that they are not strong enough to store in super, or that there is not enough for them to store.

Moving Bees Back Home for Winter

We have had a very dry summer here (150 miles south of Chicago) since May I. The clover pasturage burnt out long before the bees got any surplus from it, and only this week have we had any rain to bring things out. About June 1, I looked around and found that the prospects were very good about 60 miles north of me. Consequently, I moved almost all of my bees (65 colonies) to this location, and got tangled up with the best clover flow I ever saw. Except for the last two or three weeks there has been no rain here up to now, do you think the prospects justify me in shipping those bees back home this fall?

As I understand it, clover has to have one year to grow before it can be counted on for a satisfactory yield. It is surely killed out now, and what we have must come up from the seed this fall. However, after the exceedingly dry year of 1011, I had a good season in 1012, although the flow was unusually late in starting. I think the bees are now situated among honest people, and I don't believe they would be molested during the winter. What would you advise?

ILLINOIS.

Answer.—If I understand correctly, the

Answer.-If I understand correctly, the real question for decision is whether you can count on clover next year in your southern location, or whether your northern location will be, as it was this year, greatly superior. Of course in the latter case it will be advisable to leave the bees where they are. I am sorry to say I don't know enough to answer. I know it is said that clover must be a year old or older before it yields nectar; but I don't put entire faith in that view. It would not surprise me if you should find, upon close investigation, that the plants from which your bees have gathered such a big yield of nectar were less than a year I doubt if you can tell a year ahead whether your northern or southern location will be the better. It is likely that you cannot tell until next spring whether clover is more abundant north or south, and even then it is quite possible that more nectar will be produced in the place where clover is less abundant. So you see it is a mere matter of guessing, and I can't guess any better than you can. Sorry.

Taking Off Honey

I, When is the best time to take honey from the bees, at noon, in the morning, or in the evening?
2. How can I kill bees and save the honey?
I have 2 little swarms that are not worth

keeping,
3. How can I get the bees separated from the honey after it is taken off? IOWA.

Answers .- I. That depends somewhat on circumstances. Generally bee-keepers take comb honey from time to time as fast as each super is finished and sealed, or nearly so. In that case most of it is taken during the season that bees are busy at work, and it is better to operate while most of the gatherers are abroad in the field, and not so early in the morning or late in the evening. If, however, bee-escapes are used, they are put on toward the after part of the day and the honey taken before the middle of the next day.

Much the same thing may be said about taking extracted honey, although some of our best practitioners do not take their extracted until the close of the season for each kind of honey. Of course, it is also true that the last of the comb honey is taken at the close of the flow. At such times

there may be some gain by getting at work pretty early in the day, before robbers are much on the wing.

But after all this is said, it should be added that those who are in the business extensively do not pay much attention to the time of day, but work away any time of day, or the whole day, just as suits their convenience.

2. The usual way to kill bees is with the fumes of burning sulphur. But if each of those colonies is too small to be worth saving, you may be able to make one fair colony out of the two. Or, you could add each one to some colony that would be the better to be a little stronger. Nowadays it is not usually considered good practice to kill bees

3. There are various ways of getting bees out of surplus honey. Some use the Porter bee-escape. Some drive part of the bees out with smoke, then pile up the supers on the ground and set a Miller escape on top of each pile. Some simply brush them off the extracting combs. For a small quantity you can put the honey in a large box, put a sheet over it, and turn the sheet over from time to time as the bees collect on it.

Eggs that Will Not Hatch

About a month ago I sent for a queen-bee. She came apparently in first class condition. I introduced her to the bees right away, liberating her from the cage in about 40 hours. She seems to be in normal condition. She lays eggs all right, but they will not hatch. This is the first case of this kind I ever saw. There is lots of honey in the hive, and quite a number of bees, but they are getting fewer all the time. I want to save my bees if possible.

ANSWER.-Sometimes a queen lays eggs but the bees do not hatch them. Close observation will likely show that at the close of the laying season, eggs may be found in the hive at least a few days after any very young brood is present. That shows that the queen lays, but the workers pay no heed to the eggs. But in the season when other colonies are rearing brood right along, and honey coming in freely, if eggs do not hatch

out, the trouble is with the queen, and the only thing is to kill her. Such cases are ex ceedingly rare, but they do sometimes occur. I have had one case of the kind, and I think only one.

Shipping Bees and Inspection

Do I have to have my bees inspected before I can ship them? They are free from foul brood? Оню.

ANSWER .- I don't think there is any requirement to have them inspected unless you ship them out of the State. In that case it depends upon the law of the State into which you ship. Some States require inspection, and others do not. Whether they have foul brood or not has nothing to do with the case; if the law requires inspection, all bees shipped into the State must be inspected.

Queenlessness-" Prowling Stock"

I. I have a colony of black queenless bees. I bought 2 colonies this summer, and these black bees had foul brood. I took away all their combs and put them in a new hive, but they never built any combs at all, although I found a colony by the roadside and united the two. I took two frames of brood from the other colony that I bought and put into this hive, but they have not built any queencells.

this hive, but they have not built any queen cells.

2. Sometimes when I take off the lid there is a worm crawling on the underside of the lid about an inch long and one-fourth inch thick, gray color. Can that be some of the larvæ that got out of some cell, or is it some other prowling stock?

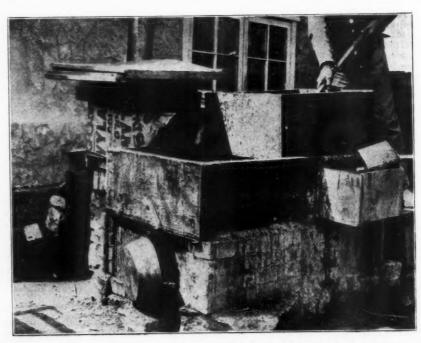
3. There are quite a lot of small ants running in and out of the hive. Will they do any damage to the bees?

4. The upper half of the two frames I put into this hive have sealed cells. Do they contain honey or brood? They have a light color. The caps are protruding a little.

NEBRASKA.

Answers .- I. It is doubtful that those bees are of value enough to fool with, seeing they are mostly old, and it so late in the season. They might be united with some other weak colony were it not that they might carry the disease with them.

2. That worm is not an escaped larva from one of the cells of brood, but "prowling stock" of another sort. It is the larva of



By Using an Abundance of Water A. F. Foster Claims He Gets All the Wax Without Using Pressure.

the wax-worm, which destroys combs when they are not properly protected by the bees. These prowlers are not worth minding in strong colonies, or those of good It alian stock, but when a queenless colony is on hand, especially a weak black one, these moth larvæ are on hand to finish up, like a lot of crows about a carrion.

3. The ants probably do no great harm except to annoy the bees.

4. I don't know from your description. Being at the top of the frame, one would expect the cells to be filled with honey, only the sealing of honey should be flat. But it would be easy for you to tell what was in a cell by digging into it.

Double-Wall Hives-Caging Queens

I. I am expecting to purchase about 10 or 11 colonies after Dec. 1, also other equipment, and would like your opinion as to the Protection hive, manufactured by the A. G. Woodman Co., of Grand Rapids, Mich. 2, Do you think that one inch of packing is enough, especially for this place? We are close to Rochester.

3. I hear about hives with 4 and 6 inches, in the Bee Journal, but do not see any of that kind advertised. Where may I purchase such hives? What dealers manufacture them?

4. What is the proper procedure necessary in the caging of a queen over another hive, as in the case of taking one out for 10 days or so, in the several different methods of management? What kind of cage is used, and how and what is the queen fed? Is the common Benton mailing cage all right when provided with good candy?

5. How long is it safe to keep the queen so caged?

6. Must she have attendants as in shipping? New York.

Answers .-- I. I have no personal acquaintance with those particular hives, but most of the hives made are much like the common dovetailed hive, and so answer well.

2. It is generally considered that more than an inch of packing is desirable, most preferring at least 3 inches; but the protection is not strictly in proportion to the amount of packing. That is, 3 inches of packing do not give three times as much protection as one inch: possibly not more than 50 percent more protection. So a single inch might answer quite as well except in very exposed places.

3. Almost any dealer or manufacturer will furnish them on application.

4. Any cage that will go easily between the combs will answer, such as the Miller cage. The Benton cage is too bulky. Sometimes, however, instead of being put between the combs, the cage is merely thrust into the entrance of the hive. No need of any food in the cage; the bees will feed the queen.

5. It is generally neither necessary nor de sirable to have her caged more than 10 days; but I have known a queen to be caged double that time without appearing to be much hurt by it.

6. No need of any attendants in the cage: they are likely to die in the cage and thus be a damage.

Diminishing the Entrance of Hives-Feeding in September

I. Will the bees winter in the open where the thermometer does not go below 50 degrees in California?

2. Should I diminish the entrance of the hive in winter?

3. My two colonies are strong with lots of brood, and appear to be working, as I notice them bringing in pollen, but they have no honey in their frames. There are lots of flowers in the neighborhood. Must I begin to feed them now (September)? I have no supers on the hives.

CALIFORNIA.

Answers.-I. Yes, bees will winter out in a very much colder climate than that.

2. In your locality probably no contraction is needed.

3. Unless you expect a flow from some later pasturage, it will be well to begin feeding in September, giving them enough so that there will be no question about their having enough for winter.

Dead Queen Larvae-Moving Bees-Evaporators

I. This summer when I looked through the

I. This summer when I looked through the hives to cut out the queen-cells to prevent swarming, sometimes I found the larva in the queen-cell dead, and of a dark gray color. Besides this I could not find anything affected by foul brood in the least. I have never seen any foul brood, but I do not think that it is because it has not the same color as it is described in bee-books. Can you tell me what it is?

2. I would like to move my 13 colonies about 80 to 100 miles from here. I made arrangements to move them in the spring while they would be light and not so crowded, and so that there would still be snow up in the hills to take them on the sleigh where otherwise the road would be rough. The time to go over the snow would take about one day. If I would leave the entrance open, also the top, and shut it up with screen, put the hives on a spring wagon, and some straw under the hives, would this plan work all right?

right?
3. I have noticed in a bee-book that in the East they take the honey off before it is sealed, and then let it run over the evaporator after extracting. Could you tell me where I could get an evaporator? UTAH.

ANSWERS .- I. A dead larva sometimes is

found in a queen-cell when there is no dis ease in the hive. It is possible that it may come from more than one cause, but perhaps in most cases it comes from being chilled. Queen-cells are quite commonly on the edges of combs, and so more exposed than other cells, and when a cool night comes the bees draw away from them, al lowing them to be chilled.

I. Your plan ought to work all right. There remains the possibility of an unusually warm day occurring during the part of the journey when the bees were on the wagon, making the bees very uneasy. In that case you would quiet them by sprinkling water

upon them.

3. I don't think any dealers or manufacturers keep anything of the kind for sale. At one time a good deal was said about them, but at present I think very few beekeepers in this country use evaporators,

Miscellaneous Questions

1. How do virgin queens look, and why are they not as good as others?
2. Why are my bees so ugly? I can go to my neighbor and be by his bees, and even put them in the hive bare-faced and not receive a sting, but when I go by my bees they always fly around me and sometimes sting.
3. What is best to feed bees when short of winter stores?

3. What is best to teed bees when shows winter stores?
4. If I set up decoy hives will bees sometimes fly into them, and, if so, where is the best place to set them?

WISCONSIN.

Answers.-I. A virgin queen looks very much like a laying queen, only her abdomen is smaller. Until she has mated with a drone she is of no value, for she will not layor if she does lay without mating, her eggs will produce only drones,

2. Bees are like folks; there is a great deal of difference in their dispositions: some are cross and some good-natured. Like enough you have happened on a cross strain, and should introduce a queen of better temper. Possibly the way the bees are treated may make a difference, since rough handling is inclined to make them cross. Then, again. bees that are where folks are passing by frequently are not likely to be as cross as those that are seldom approached.

3. Nothing is better than good honey, but if you haven't that, then feed syrup made

of the best granulated sugar,

4. If stray swarms are plenty, you will be likely to get some in decoy hives. I doubt if it makes much difference where they are placed, only so the bees can easily get at them. I think it is customary to put them in the crotches of low-branching trees, such as apple trees; I don't know just why.

Division-Boards-Buying Queens

I, Of what use are division-boards, and how often should they be used?

2. When buying queens, would it be better to buy them close by?

ARKANSAS,

Answers .- I. A division-board, properly so called, is a thin board more or less tight fitting, that divides a hive into two separate compartments, as when a hive is to be used for two or more nuclei, or when a colony is too small to occupy the whole of the hive. In this sense there are a very few divisionboards, but when one is mentioned a dummy is really the thing that is meant. A dummy is loose fitting, not longer nor deeper than the frame of the hive. (It may be less than that.) Dummies are in use in my hives all the time, winter and summer. The frames do not entirely fill a hive, and the dummy fills up the vacant space at one side. It is much easier to get out the dummy than to get out the first frame where there is no dummy, and after the dummy is out it is easy to get



MR- LEWIS SCHWERTMAN, OF FREEPORT, ILL., AND A PART OF HIS APIARY.

out the frames. If less than the full number of frames is in the hive, one or more dummies are placed next to the exposed frame.

2. There would be no great difference except that with a shorter distance the queen would be a shorter time out of the hive.

The Dzierzon Theory

The following was copied from a daily paper. Is the doctrine true? I have never heard of it before.

"The strangest thing that Mr. Watts told the Review reporter was that the drones are produced from unfertilized eggs. One with experience with poultry would expect such eggs to fail to hatch. Scientists both by microscopical examination of the eggs found in drone combs and by studying the life history of the bees, have proven that the drone actually has only one parent, the queen

mother, and every observing apiarist has seen convincing evidence of this fact."
ILLINOIS.

ANSWER .- Of all the bee journals of any language in the world, the one that I have valued most is the first volume of the American Bee Journal. That was published in Its chief value consists in the fact that it gives a full discussion of the Dzierzon theory, the kernel of which is that the queen is fertilized once for life, laying fertilized and unfertilized eggs, and that the unfertilized eggs produce only drones. In the half century since then there has been some attempt to controvert the Dzierzon theory, especially by Ferdinand Dickel. but intelligent bee-keepers quite generally accept it; so that the clipping is all right.

spring count; the second year, 20 nound sper colony; the third year nothing. We are permanently located here, and can raise all kinds of fruit. The elevation is 300 feet above sea level, and on this account apples do well, much better than at sea level. We also have the finest climate imaginable. We do not irrigate. We have one month of open season on deer, and the boys have already killed two. Mountain quail, bobcats and foxes are also plentiful. A. L. Dupray. Carpinteria, Calif., Sept. 2.

Prospects Better

The fine rains we have been having lately will insure us something of a fall flow of honey, I believe. The bees are building up fine now, and some are storing a little.

Salem, Iowa, Aug. 19.

J. W. STINE.

Good Clover Flow in Ohio

Bees did fine this season, and we had a very good flow from clover, but basswood is nil. J. C. Mosgrove. Medina, Ohio, July 13.

Bees and Honey in the Far East

I saw bees in many places at Jericho, near the Jordan river, north of Jerusalem, on the way up to Nazareth; again at Haife, near Mt. Carmel, and later in Greece and Italy. Honey was offered us regularly at the hotels in Jerusalem, Jericho, Nabalus, Nazareth and Tiberias. It was of good quality everywhere. It reminded one of the description of the land as one that flowed with milk and honey.

San Rafael, Calif.

Good Average for Iowa

We have a heavy honey-flow here even yet some days from clover, and bees have averaged about 150 pounds up to date per colony, spring count. Crops are also good, especially corn. Hospers, Iowa, July 28.

Clover Very Abundant

My wife and I have just extracted a little over 3000 pounds of the finest white clover honey, and the supers will soon be full again; many of our colonies will average over 100 pounds. Never since I kept bees have I seen clover so abundant as this year.

G. A. BARBISCH.

La Crescent, Minn., July 22.

No Surplus at All

Not one pound of surplus from over 100 colonies this season. B. W. Brown. Moreno, Calif., Aug. 11.

A Ton from Nine Colonies, Spring Count

Had a good season here this year. I had 8 colonies last fall. They all wintered nicely. I bought one more colony this past spring, which made me o. I have increased to 10 this season, and all are in fine condition. I will get over a ton of honey this year; 1500 pounds is in sections 4½x1½, and the balance in extracting frames. The combs were built this season.

GEO. H. ELSKAMP.

Maurice Iowa Aug Id. this season.
Maurice, Iowa, Aug. 14.

Praise for Dr. Phillips

Praise for Dr. Phillips

I do not agree with Dr. Bonney, page 238, in reference to Dr. Phillip's investigations of the cause of winter losses. If we followed Dr. Bonney, would it not be better to go back to the old box-hive or gum? The modern hive is an advantage over the old methods: you really receive more, and a better quality of honey by the modern methods of bee-keeping.

It must be understood progressive bee-keeping assists Mother Nature occasionally. If there is a shortage of natural food supplies the bee-keeper steps in and supplies the shortage to his bees. If the winter is severe the progressive bee-keeper has not waited to find the intent of Mother Nature for that winter. He has early in the fall, and every fall, given his bees protection in some manner. It may be cellaring, chaff-

REPORTS AND EXPERIENCES

A Report from Nebraska

A Report from Nebraska

In February, 1612, I purchased 4 colonies of bees. They were in rather a weak condition, but during the summer they gave me 175 pounds of honey and 2 swarms. To these I added 3 more swarms, thus having 0 colonies the beginning of the present season. Up to July 25, I have taken off 445 pounds of what our merchant pronounces A No. 1 honey. Only one swarm has issued from the hives this season; but I secured another to the great relief of the telegraph operator at our station, as they had settled on the signal pole at the door of the depot, and a passing through train had angered them until they were vicious. The manipulator of the "ticker" was a prisoner until I had coaxed the bees into the hive. This gives me 11 colonies for the winter.

I have always been a lover of honey, but was never situated so I could care for bees. I had never seen a swarm hived, and did not know a worker, drone or queen, except that a few times in my life worker-bees had stung me; and a bee-sting on my person is a thing nof to be forgotten, as the swelling and itching is something terrible to endure.

I have always been a reader and student of literature on bees, and much interested

stung me; and a bee-sting on my person is a thing not to be forgotten, as the swelling and itching is something terrible to endure.

I have always been a reader and student of literature on bees, and much interested in them; hence, had some of the theory, and by the knowledge thus gained I was able to recognize each variety of the colony, and to hive unassisted the first swarm I ever saw clustered, and also captured the first queen I ever saw. It seems strange to me that more people do not keep bees; for all the sweets to be found none can equal honey, both for flavor and healthfulness. Thousands of gallons of manufactured syrups, made of various questionable materials, are consumed, and ofttimes to the detriment of those eating them; when the purest sweet gathered directly from Nature's own "factory" can be had for a little care and attention to the "busy bee."

I take no chances in getting stung, for I fortify myself with covering for my head. It is made by taking common window screening to inches wide and form it into a circle amply large to set out from face and neck; put a top to it madeout of muslin, and a cape of the same; wearing under this a small cap to hold the top off my scalp. Then with a common pair of 10-cent cotton gloves that have been added gaunlet sleeves with rubber elastics to hold them tight on the arm, and my smoker in hand, I am ready to gamong them as bold as you please.

It is a pleasure to work with bees, and in some way I seem to have a sympathetic

among them as bold as you please.

It is a pleasure to work with bees, and in some way I seem to have a sympathetic feeling for the little fellows, so industrious, so cleanly and methodical. I am amazed at their apparent intelligence, yet we do not know whether it is intelligence or what force it is which makes them such wonderful creatures.

It is with reluctance that I leave off watching them in their busy flight, coming home and going a field; and then when the lid is off the hive, to see them so intent on their work, with no confusion amidst the thou-

sands of them, each busy with his own part in the hive.

Many town and city people could, if they only knew it, keep several colonies of bees to their pleasure and profit, affording a study of Nature, and supplying their table with what is now a costly luxury to them. Besides, the multiplying of bees in the country adds to the productiveness of fruits and flowers by the sureness of pollinization of their bloom. Of course, they require a certain amount of care. Everything that is worth while requires care; but the work is of that light kind that either man or woman can attend to it without great effort.

I hope to increase my number of colonies to two or three dozen, for I find a ready market at good prices for more than I can produce, my 445 pounds being now nearly all gone, and no search has been made for a market at all.

Richfield, Neb.

Experiences With Foul Brood

I will give you my experience in dealing with foul brood. I had 30 prosperous colonies in 1012. In May of last year I examined my bees and found several very weak and quite a quantity of dead larvæ in many. I thought it was from fruit spraying, so I changed good frames of brood from strong colonies with the weak, and gave the disease to all the bees I had. Some time in June I examined them and found no improvement. It then dawned on me that it was foul brood. ment. It the foul brood.

ment. It then dawned on me that it was foul brood.

In May, 1013, I shook 2 and 3 colonies together, and reduced to 11 in all. I made a large zinc vat that would hold 3 hives, and boiled the hives, and used care not to let the bees get any of the honey. Now, the 11 gathered about 600 pounds of honey during June, but on examination I find some have foul brood yet. I am wondering if the bees will get rid of it before they all die. I have read about foul brood all my life, and I am 53 years old, but to have the experience it is quite different.

I will say for the benefit of those who have never had foul brood, the half has never been told; how sneaking and hard it is to get rid of it. It seems with all the care and caution of the bee journals, it would be easy to cure; but reading about it is one thing and curing it is quite another.

Exeter, Mo.

W. P. BROWNING.

Another Poor Report from California

We have had two poor years; this year is the poorest of all. No doubt we will have to feed some the latter part of the winter. We live in the mountains, 2½ miles from the coast in Ventura county, in a small valley called Casitas. Our honey-plants are different kinds of sage, some mustard, wild buckwheat and wild alfalfa, but when the sage is in bloom and yields nectar the bees will leave everything for that.

We have been here three years. The first year we secured 130 pounds per colony,

hives, outer covering or tenement hives, but by whatever method he has done to the best of his ability. Now if a heavy loss occurs what is he to do, blame Providence or the natural laws of Nature? All weaklings do this. Should he blame himself? Was he to blame? Who really knows the true cause of winter loss? If there be such a man, let him not hide his light under a bushel. We bee-keepers are awaiting the man who can show us.

bee-keepers are awaiting the man who can show us.

I do not know, and I am not from Missouri, but I have confidence in Dr. Phillips, as I have confidence in his Bureau. The bee-keeping world worked over the cause of foul brood for many years—yet it was the Bureau of Entomology, conducted by Dr. Phillips, who ran the true bacillus to its lair, and we now know the bacteriological cause of foul brood. If Dr. Phillips thinks he can overcome the excessive winter losses of bees, the bee-keepers should be with him to a man. This work is no work for the layman; it necessarily will take months or years of hard study and work. It is likely that not one thing is the cause of winter loss, but many.

The individual bee-keeper has neither the ability, time, nor the money necessary to conduct such a work, and we should thank our stars we have such a progressive head working for us at Washington. I do not think the bee-keepers at large realize the good work which has been done for us by this Bureau. Those who do should acknowledge the fact by writing to the Department of Agriculture, to commend the good work accomplished by the Bureau of Entomology in behalf of apiculture.

Swarthmore, Pa.

Penn G. Snyder.

Classified Department

[Advertisements in this department will be inserted at 15 cents per line, with no discounts of any kind. Notices here cannot be less than two lines. If wanted in this department, you must say so when ordering.

BEES AND QUEENS.

PHELPS' QUEENS are hustlers.

NUTMEG ITALIAN QUEENS, leather color. After June 1, \$1.00. A. W. Yates, Hartford, Conn.

BEES AND QUEENS from my New Jersey piary. J. H. M. Cook, 1Atf 70 Cortland St., New York City.

FOR SALE—Choice Golden Queens that produce Golden bees equal to any.
Wm. S. Barnett, Barnett's, Virginia.

PHELPS' QUEENS will please you.

Day-Old Virgin Queens will please you. Good way to get fine Italian stock; 50 cents each; \$5.00 per doz. Untested, \$1.00. Tested \$1.50. Geo. H. Rea, Reynoldsville, Pa.

For SALE.—Untested queens that produce, 75c; tested, \$1.00; hybrids, 30c. S. H. Rickard, 8A3t 506 Machesney Bldg., Pittsburg, Pa.

WILL SELL untested Goldens during September and October for 50 cts each, or six for \$2.50. J. T. Elkinton, Jennings, La.

For SALE—Golden untested queens 70 cts-each, or \$7.25 a dozen. Safe arrival guaran teed. D. F. Talley. R.F.D. 4, Greenville, Ala,

QUEENS—Improved red-clover Italians, bred for business: June 1 to Nov. 15. Untested queens, 75c; select, \$1.00; tested, \$1.25 each. Safe arrival and satisfaction guaranteed. 1A1y H. C. Clemons, Boyd, Ky.

HARDY Northern-reared Queens of Moore's strain of Italians: ready June 15. Untested, \$1.00; 6 for \$5 00; 12 for \$0.00. See testimonial on page 210. P. B. Ramer, Harmony, Minn.

CHOICE QUEENS from June to Sept. 1 at \$1.00 each; six for \$5.00. Place orders now, and have them filled in rotation. 5Atf D. J. Blocher, Pearl City, Ill.

FOR SALE-5 to 10 colonies good Italian Bees of Doolittle strain in Danz. Hives. Will take Barnes' Power Saw in exchange, If suitable and in good shape. Edw. L. Hall, 1706 Forres Ave., St. Joseph, Mich.

FOR SALE—About 30 colonies of bees and a large lot of bee-supplies. There will be a carload of the bees and supplies. Will sell cheap, as I am going out of the business. Write for particulars.

Edwin Bevins, Leon, Iowa.

THE RUSH FOR PHELPS' queens has been so great that we will be unable to take care of any more orders this year. We have some of the finest breeders for next year that you ever saw. Give us your orders early.

C. W. Phelps & Son,
Binghamton, N. Y.

GOLDEN and 3-band Italians, also gray Carniolan queens. Tested, \$1.00 each; 3 or more ooc each. Untested, 75c each; 3 to 6, 70c each; 6 or more, 65c each. Bees per lb., \$1.25; nuclei per frame, \$1.50. A discount on orders booked 30 days before shipment Att C. B. Bankston, Buffalo, Leon Co., Tex.

FOR SALE-Choice virgins, 40 cts. each; 3 for \$1.00; untested, 60 cts.; tested, \$1.25; breeders, \$2.50, Italians or Carniolans. Stanley & Finch, 1451 Ogden Ave., Chiciago.

SPECIAL — Golden-all-over queens that produce workers of the brightest kind. 5000 mated queens was my sales last season. Untested queens each 75C; 50, \$12.50; 100, \$10.00. Tested, \$1.25. Select-Tested, \$2.00. Breeders. \$5.00 and \$10.00. J. T. Dunn, Queen Breeder, 6A7t Rt. 3, San Jose, Calif.

GOLDEN QUEENS that produce Golden Workers of the brightest kind. I will challenge the world on my Goldens and their honey-getting qualities. Price, \$1.00 each; Tested, \$2.00: Breeders, \$5.00 and \$10.00. 2Atf J. B. Brockwell, Barnetts, Va.

Murray's famous North Carolina bred Italian queens (red clovers and goldens) for sale again. As good as the best; no foul brood known. They are as good honey gatherers as can be obtained, and winter as well. My improved strain is carefully selected, and bred up from Moore's, Root's, and Davis' improved stock. Select untested, one, 75c; doz., \$8.00. Fested. \$1.25. Select tested, \$1.50; extra select tested, \$2.00. Breeders, \$3.00 and \$5.00.

H. B. Murray, Queen-breeder, Liberty, N. C.

HONEY AND BEESWAX

"NULL'S FAMOUS MELILOTUS HONEY." Sample for stamp. Null Co., Demopolis, Ala.

EXTRACTED HONEY, thoroughly ripened. Write E. C. Pike, Box 10, St. Charles, Ill.

Wanted to buy Extracted Honey. Kindly send price and sample.
G. L., 2252 Belmont Ave., Chicago, Ill.

WANTED—Comb, extracted honey, and eeswax. R. A. Burnett & Co., 6A12t 173 S. Water St., Chicago, Ill.

For SALE.—Fine, Rich, Pure White Clover Honey: also Light Amber Alfalfa. Put up in any size packages, any quantity. Write for prices. Dadant & Sons, Hamilton, Ill.

Dealers and producers who buy honey, kindly ask for a late number of the Review, giving a list of members having honey for sale. Many carloads are listed in the October number, Address, OAtf The Bee-Keepers' Review, Northstar. Mich.

FOR SALE—No. 1 white comb. \$3.50 per case; No. 2, \$3.00, 24 sections to case; six cases to carrier; clover extracted, two 60-lb, cans to case, 9 cents.

Quirin-the-Queen-Breeder, Bellevue, Ohio.

FOR SALE—Our crop of "Elite" white clover extracted honey. None better produced. Also, Raspberry extracted, blended with willow-herb, nearly as white as the clover, good body and flavor, 8c per pound. Sample of either free. Address, E. D. Townsend & Sons, Northstar, Mich. (Formerly at Remus.)

20,000 POUNDS OF HONEY for sale. Buckwheat, goldenrod, aster blend. \$8.40 per case. This is dark honey (golden). Clover, milkweed, raspberry blend of good body; but of a little in color and flavor, \$0.00 per case. Above honey all in new 60-lb. cans and cases. 120 pound net to case. Sample upon request, 9A2t Ira D. Bartlett, East Jordan, Mich.

Dittmer's Foundation Is the Comb Foundation made to suit the Honey Bee. It's the Comb Foundation that helps produce the full capacity honey crop. It's the Comb Foundation to give your Honey Bees. Ask for more information; also prices and FULL DISCOUNT on all Bee-Supplies. Gus Dittmer Company Augusta, Wisconsin

Solio do do con la constante de la constante d





FOR SALE

FOR SALE—Empty second-hand 60 lb. canstwo cans to the case, good as new, 25 cents per case. C. H. W. Weber & Co., 2146 Central Ave., Cincinnati, Ohio.

My Entire Aplary of 175 colonies Italian bees with complete outfit for running same for comb honey; also International Harvester Auto Truck. Selling on account of sickness. J. S. Shatters, Fort Lupton. Colo.

FOR SALE—130 stands of bees with or with out fixtures. Bees in good 8-frame hives Hoffman frames, mostly wired. No disease Owner died. Inspected by State Entomolo gist. Write.

Mrs. Ida McCauley,
Rt 2, Madison, Ind

FOR RENT——An 80 acre small fruit and bee farm, with 75 stands of bees and fixtures suitable for running same. Six room frame house, new Two good barns and outbuildings: 40 acres in pasture; tobacco land. A man with small family; experienced in care of bees preferred. Must give best of reference. Write.

Mrs. Ida McCauley, R. D. 2, Madison, Ind.

SUPPLIES.

BEE-SUPPLIES—none better. 35 years of experience.

I Ideal Winter-Case, complete. \$2.50

100 Hoffman Brood-Frames in flat. 2.50

100 Sections. 2.50

100 Section-Holders. scalloped. 2.00

100 Section Smoker. 70

DADANT'S FOUNDATION.

Medium Brood, per pound. 59

Thin Surplus 66

Extra Thin 60

Discount on larger amounts.

Satisfaction guaranteed or money refunded. R. H. Schmidt, R. R. No. 3, Box No. 209. Shebovgan, Wis.

BEE-KEEPER, let us send our catalog of hives, smokers, foundation, veils, etc. They re nice and cheap. White Mfg. Co., 4Atf Greenville, Tex.

POULTRY

FOR SALE — Buff Orpington eggs, pure bloods: \$1.00 for 15. Satisfaction guaranteed. 2AIy W. H. Payne, Hamilton, Illinois.

HONEY LABELS

THE NUMBER of enquiries coming in for honey labels has been so large that we have decided to put in a stock of these for the convenience of our readers. Should you be in need of anything in this line, send for a copy of our label catalog, which will be sent free,

American Bee Journal,
Hamilton, Ill.

SITUATIONS.

Young Married Man wants steady employment in apiaries; 12 years' experience. Furnish best of references. Will go anywhere.

Newton Cale.

8A3t Rt. I, B. 88, Floresville, Tex.

WANTED—Experienced Apiarist to help pack bees for winter, and to get ready for next season. May develop into steady work for a year or more. E. H. Bruner, 3836 North 44th Ave., Chicago, Ill.

IF YOU are having trouble trying to live by eating by eyesight, send for my circulars and receive a slice of eating by brainsight.

C. W. DAYTON, Owensmouth, Cal. The Ripe Honey Man



Bingham Bee-Smokers

are self-cleaning, as the cover sits inside the fire-pot; the liquid creosote runs back into the fire and burns up. The valve in the bellows gives you a Smoker with life.

Smoke Engine	4		inch	stove		\$1.25
Doctor	3	1-2	46	66	-	.85
Conqueror	3		66	66	-	.75
Little Wonder	2	1-2	66	66	-	.50

Two larger sizes with metal legs and hinged cover. In copper, 50c extra.

Parcels Post shipping weight, 2 pounds each. For sale at your dealers or direct

A. G. WOODMAN CO., Grand Rapids, Michigan

Organized Co-operation

THE WESTERN HONEY BEE

A new magazine owned and run by the bee-keepers, filled with Western life as depicted by the best talent on bee topics obtainable. Special department on crop and market conditions during season.

ADVERTISERS

Queen-Breeders' Department 1 inch, \$2.00 per issue

Classified, 15c a line

Write for particulars

Published Monthly by the

California State Bee-Keepers' Ass'n Los Angeles, Calif.

GEO. L.EMERSON, Manager 3497 Eagle Street

Honey Labels

Owing to the many enquiries we have had for Honey Labels, we have put in a line of these for the convenience of our readers.

Send for catalog, giving samples of labels with postpaid prices. We also list Envelopes and printed Letter Heads.

American Bee Journal, Hamilton, Illinois.





Three-Band and Golden Italians, Caucasians and Car July 1st to October 1st Untested \$.75 \$4.25 \$ 8.00 Tested 1.00 5.50 10.00

Tested, \$1.50 each; and Select Tested, \$2.00 each.

All queens are reared in strong, vigorous colonies, and mated from populous nuclei. Instructions for introducing are to be found on the reverse side of the cage cover.

OF OUR BRAND FOUNDATION

"falcon" foundation is coming in more constant use every year, being adopted by the largest and most prominent bee-keepers in this country, to say nothing of those in foreign lands where our foundation is largely used. We feel confident that after you have used one lot of "Falcon" foundation, which is made in our plant at Falconer, N. Y., you will purchase it in the future, and are sure that you and your bees will be pleased with it in every respect.

Full line of hives, sections, and supplies manufactured by us at Falconer, N. Y. Write for samples of our foundation.

All goods guaranteed.

A trial will convince you.

Red Catalog postpaid.

Central States distributers: H. S. Duby, St. Anne, Ill., C. C. Clemons, Bee-Supply Co., Kansas City, Mo.

FACTORY W. T. FALCONER MFG. CO.,

Falconer, N. Y., U. S. A.

Where the good bee-hives come from

HONEY

Our Friction-top Honey-cans, Slip Cover pails, Honey Shipping cans, Round and Square, are standard containers for honey.

American Can Company

Chicago

New York

San Francisco

With offices in all large cities

Bee-Keepe

would like to add a thousand new subscribers to its list for 1914, and is going to would like to add a thousand new subscribers to its list for 1914, and is going to offer special inducements to get them. Listen: The April and May numbers contain the report of the National convention at Cincinnati, Ohio, and in themselves contain 96 pages. The last half of 1913 contains the series of articles, "3000 Colonies in 50 Yards Managed from One Office;" tesides many other interesting articles that space forbids mentioning. We are printing 400 extra copies of the Review for the last half of the year on purpose to give to new subscribers, and as long as they last we will give the April and May numbers containing the convention report, the last half of 1913, and all of 1914, for an even dellar. You have likely been thinking for some time that you would like the dollar. You have likely been thinking for some time that you would like the Review, and this will be an opportune time to get it at bargain-counter price.

Address. The Bee-Keepers' Review, Northstar, Mich.

We Make a Specialty of Manufacturing

They are the Finest in the Land-None Better.

Our Prices will make you smile. We want to mail OUR BEE-SUPPLY CATALOG to every bee-keeper in the land. It is FREE. Ask for it.

H. S. Duby. St. Anne, III., carries a full line of Our Goods, and sells them at our regular catalog prices.

AUG. LOTZ & CO. Boyd, Wis.

Please mention Am. Bee Jour -- 1 when writing.

Honey Jars

We carry several styles of honey jars, and would be pleased to mail you our catalog of everything a bee-keeper uses. 25-pound jar, heavy flint glass, \$4.75 gross.

Heavy cartons that protect. Honey in any size package from I pound to a barrel.

I. J. STRINGHAM

105 Park Place, New York, N. Y. APIARIES: Glen Cove, L. I.

Will be ready to take care of your queen orders, whether large or small, the coming season. Twenty-five years of careful breeding brings Laws' queens above the usual standard; better let us book your orders now.

Tested queens in March; untested, after April 1st. About 50 first-class breeding-queens ready at any date.

PRICES: Tested, \$1.25; 5 for \$5.00; Breeders, each \$5.00. Address

W. H. Laws, Beeville, Texas. TATALAN TATALA





There is a demand for Friction-top Cans and Pails packed in dozen and half dozen re-shipping cases. We have prepared to take care of this demand at the following prices, f. o. b. Hamilton, or Keokuk, Iowa: In lots of to. In lots of too

Cases con	ntaining "	6-5	ound pa	ails, per	case	-	:	-	-	75c 45c 62c	70c 40c 58c	
			F. O.	B. Han	ilton, o	or Keokul	k, lowa.					
10 pound 5 "	pails i	n crates	of 100			-	-	-	10	\$7.25 5.50	\$6.75 5.00	
			F. O.	B. Ham	ilton, o	r Keokuk	, lowa.					
 60 pound 60 "	square		ne "		nilton.	or Keoku	k. Iowa.	-	- II	80c 48c	In lots of 100 65c 40c	

Cans Also Furnished To Dealers.

Big Stock-Immediate shipment on receipt of orders Hamilton, Illinois DADANT & SONS,

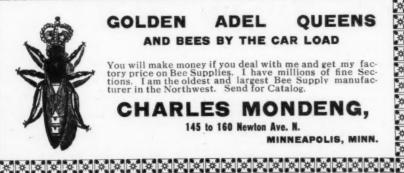
BEE - KEEPER'S NOVELTY POCKET - KNIFE



Your Name and Address will be put on one side of the handle as shown in the cut, and on the other side a picture of a Queen-Bee, a Worker-Bee, and a Drone-Bee. The handle is celluloid, and transparent, through which is seen your name. If you lose this Knife it can be returned to you, or it serves to identify you if you happen to be injured fatally, or rendered unconscious. The cut is the exact size; it is made of best steel. When ordering be sure to write exact name and address. Knife delivered within two weeks after we receive order.

Price, postpaid, \$1.00; or with a year's subscription to the American Bee Journal—both for \$1.80; or given Free as a premium for sending us 3 New subscriptions at \$1.00 each.

American Bee Journal, Hamilton, Illinois.



QUEENS GOLDEN ADEL AND BEES BY THE CAR LOAD

You will make money if you deal with me and get my factory price on Bee Supplies. I have millions of fine Sections. I am the oldest and largest Bee Supply manufacturer in the Northwest. Send for Catalog.

CHARLES MONDENG.

145 to 160 Newton Ave. N.

MINNEAPOLIS, MINN.

Try My Famous Queens From Improved Stock.

The best that money can buy; not inclined to swarm, and as for honey gatherers they have few equals.

3-Band, Golden, 5-Band and Carniolan

s-Band, Golden, 5-Band and Garniolan bred in separate yards, ready March 20, Untested, one, \$1; six, \$5; 12, \$0; 25, \$17 50; 50. \$34; 100, \$65. Tested, one, \$1.50; six, \$8; 12. \$15. Breeders of either strain, \$5. Nuclei with untested queen, one-frame, \$2.50; six one-frame, \$15; two-frame \$3.50; six two-frame \$20.40; nuclei with tested queen, one-frame, \$300; six one-frame, \$17.40; two-frame, \$4; six two frame \$23.40. Our Queens and Drones are all reared from the best select queens, which should be so with drones as well as queens. No disease of any kind in this country. Safe arrival, satisfaction, and prompt service guaranteed.

D. E. BROTHERS, Attalla, Ala.

THE Discount and Dull Season

is here. Send us a list of goods wanted for next year, and get our prices—a money saving proposition. We have the largest, most complete and best stock of any House visitors welcome. Catalog ready in January—it's free.

H. S. DUBY & SON,
St. Anne, Illinois.

Early (FROFALCON) Queens "ITALIANS"

Untested Queens to June 1st \$1.00 each. After June 1, 90c each. Special prices in large quantities. A 5-pound bucket of Orange Blossom Honey delivered at your door by express for \$1.10.

JOHN C. FROHLIGER, 1642 Milvia Street, Berkeley, Calif. Greater San Francisco, Calif.

Falcon Bee-Supplies, etc. ase mention Am. Bee Journal when writing



75 POWER HONEY-EXTRACTORS

Our new catalog is full of information about these labor-saving machines. With the difficulty of getting competent help, the power extractors are being sold largely in this and foreign countries, and the present demand is far greater than ever before. Read what a California producer says in a letter to a disinterested party, which we were permitted to publish:

GENTLEMEN:—I should like to say a few words in favor of the ball-bearing Root Automatic Extractor, as I believe it is as near perfection as it can be. This machine runs so easily that a few turns to get it up to speed is all that is necessary; and the men, while using the No. 17, which I formerly had, could average only 1000 lbs. per day, while with this machine they can average 2000 lbs. with but one additional man. No apiary can afford to be without one of these machines.

I feel like congratulating The A. I. Root Co. for making an invention that is such a satisfaction, financially to the honey-producers interests.

B. B. HOGABOOM, Elk Grove, Calif.

-HERE ARE A FEW MORE

A word about the power extractor I purchased from you through H. L. Jones, of Goodna. I found it to work very satisfactorily, and it will do all it is claimed to do and more. I use the gasoline engine for several purposes besides driving the eight-frame extractor, such as driving the washing-machine for the lady of the house, and corn cracking and grinding. I consider it one of the best speculations I made in connection with the apiary.

F. C. GOLDER, Pittsworth, Queensland.

Yours of the 16th, also the brake-band for power-extractor, came to hand. Thanks for sending it so promptly. This is my second season with the power extractor. I would not like to be without it now, even if I had only fifty colonies,

DAVID RUNNING, Grindstone City, Mich., July 10, 1910.

I received the extractor I ordered of you some time ago. It arrived in good shape. I set it up and extracted 143 quarts of honey, it at 35 cents a quart. The extractor is just fine—does the work completely.

F. D. KING, Athens, Ohio, Aug. 16, 1912. sold it at 35 cents a quart.

The engine I got of you this spring has done fine. We ran it all fall. and never had any trouble at all.
V. V. DEXTER, North Yakima, Wash., Jan. 19, 1911,

For Full Particulars See Our Catalog The A. I. ROOT COMPANY, Medina, Ohio

BRANCH OFFICES

New York, 139-141 Franklin St. Philadelphia, 8-10 Vine St. St. Paul. 1024 Mississippi St. Washington, 1100 Maryland Ave., S. W.

Chicago, 213-231 Institute Place, Des Moines, 565 W. Seventh St-Syracuse, 1631 Genesee St. Mechanic Falls, Maine

A Few Agents Handling these Goods:

California	Madary's Plaining Mill, Fresno Madary's Supply Co., Los Angeles
Colorado	Barteldes Seed Co., Denver
Indiana	Walter S. Pouder, Indianapolis M. H. Hunt & Son, Lansing
New Mexico	Roswell Seed Co., Roswell

Missouri	Blanke Mfg. & Supply Co., St. Louis
Ohio	ohn Nebel & Son Supply Co., High Hill S. J. Griggs Co., Toledo
Onto	C. H. W. Weber & Co., Cincinnat
Texas	Texas Seed & Floral Co. Dallas
Toe	epperwein & Mayfield Co., San Antonio

RAMER'S QUEENS Of Moore's Strain of Italians Ready June 15

Untested, \$1.00; 6 for \$5.00; 12 for \$9.00

April 28, 1913.

P. B. RAMER, Harmony, Minn.—

Dear Sir:—The 30 queens I got of you in 1911 were the best queens; built up the fastest, and gave the largest yield of honey I have had in twenty years of bee-keeping. My average was 160 lbs. to the colony in 1912, and I lost a part of the flow for want of super room.

Yours very truly,

Rt. 4. Preston. Minn.

Rt. 4. Preston, Minn

OUEENS OF MOORE'S STRAIN OF ITALIANS

PRODUCE WORKERS

PRODUCE WORKERS

That fill the supers quick
With honey nice and thick.

They have won a world-wide reputation for honey-gathering, hardiness,
gentleness, etc. Untested queens, \$1:
six, \$5: 12, \$0.00. Select untested, \$1.25:
six, \$6.00; 12, \$11. Safe arrival and satisfaction guaranteed. Circular free
I now have 750 nuclei, and am filling
orders by return mail.

J. P. MOORE, Queen-breeder, Route 1, Morgan, Ky.

Published at HOOD RIVER, OREGON,

is the best, handsomest and most valuable fruit growers' paper published in the world It is handsomely illustrated and shows the Western methods which have been so successful in winning high prices.

Subscription Price \$1.00 Per Year in Advance Sample copies upon request.

Better Fruit Publishing Company HOOD RIVER, OREGON.

(Trade mark.)



SAVES

HONEY AT ALL
TIME DEALERS

Each, 15c; Doz., \$1.65, postpaid

If your Dealer does not keep them, order from Factory, with complete instructions. R. & E. C. PORTER, MFRS.,

Lewistown, Illinois



Fine Yellow

Italian bees & queens. If you need a fine yellow Queen quick, try Fajen and you will order more. Extra fine queen, only \$1.00; untested, 75c. 3-fr nucleus. only \$2.75. Full colony in 8-fr. hive with fine tested queen, \$5.50.

J.L.Fajen, Stover, Mo.

WESTERN BEE-KEEPERS can save the best goods obtainable, especially made to meet Western condition. Send for new catalog and special price list to

Colorado Honey-Producers' Association Denver, Colorado

ITALIAN AND CARNIOLAN



for FALL DELIVERY. The best of either RACE

Prices: 75 cts. each

\$8.00 per dozen.

GRANT ANDERSON San Benito, Texas



HONEY AND BEESWAX~



CHICAGO, Sept. 18.—The market during the past six weeks has been practically one of large receipts and few sales. It is difficult now to place the best grades of comb honey at more than 17c per pound, with the maiority of the receipts selling at 15@16c per pound. The amber grades range from 1@3c per pound less. The weather has been too warm up to this time to place honey with the general trade, but now that the peach season is drawing to a close, there is a probability of a much more active market. Extracted honey is also quiet with the white grades. bringing from 8@9c per pound; amber, 7@8c per pound, according to kind and quality. Extracted in barrels is selling at from ½@1c per pound less than in cans, as the trade no longer wants it in that shape, Beeswax steady at from 30@32c per pound, according to color and cleanliness.

R. A. BURNETT & CO.

KANSAS CITY, Mo., Sept. 17.—Receipts of comb honey are large. Three cars of western comb are on the market, beside local shipments. The demand is good. Receipts of extracted are not large; demand fair. We quote as follows: No. I white comb. 2. section cases at \$315 to \$3.25: No. 2, \$3.00; No. I amber, \$3.10; No. 2, \$2.75 to \$3.00. White extracted, per pound. 8@3½c; extracted amber, 7@8c. Beeswax, No. I, 30c per pound; No. 2, \$25c. No. 2, 25C. C. C. CLEMONS PRODUCE COMPANY.

Indianapolis, Sept. 18.—Honey is moving freely. Fancy white comb is selling at 16@-17C; No, 1 white, one cent less Finest ex-

tracted, o@ioc in 5-gallon cans. Beeswax is in good demand, and producers are being paid 32c, cash or trade. WALTER S. POUDER.

CINCINNATI, Sept. 18.—The demand for both comb and extracted honey is not as brisk as it should be for this time of the year. We are receiving quantities of both comb and extracted honey. Fancy white clover comb honey is selling at 16c per pound. No. I white is selling at 15.50 a case of 24 sections. Off grades do not sell. Extracted white clover honey in 60-pound cans is selling from 60% per pound. Amber grades are selling from 7½@8½c per pound, according to grade and quantity purchased. Beeswax is selling from 33 to \$35 per 100.

The above are our selling prices, not what we are paying. C. H. W. Weber & Co.

CINCINNATI, Sept. 10.—The crop of honey throughout the State is greater than one can imagine. While the prices are sagging some, it is only a question of having the nerve to hold up the price. We are still selling comb honey at 14@16%c per pound for a good to choice grade; while amber extracted honey in barrels is selling at 6%@c per pound, according to the quality and quantity purchased. Please observe the above are our selling prices, not what we are paying. For choice bright yellow beeswax we are paying 30c per pound delivered here.

The FRED W. MUTH Co.

SAN FRANCISCO, Sept. 10.—Comb honey has been coming in, and the demand is very

light, owing to plenty of fruit. Extracted is moving slowly. Comb honey, fancy, 14½c; No. 1, 13c; light amber, 10@12c; darker grades 8@11c. Extracted, water white, 0c; light amber, 7½@8c; other grades, 5@7c, Beeswax, 30c for nice yellow; darker grades, 24@26c.

JOHN C, FROHLIGER.

Boston, Sept. 19.—Pancy and No. 1 white comb, 16@17c per pound. New fancy white extracted in 5-gallon cans, 10@11c. Beeswax, 30c. Pure white honey in barrels, 9c per pound.

BLAKE, LEE COMPANY.

DENVER, Sept. 18.—The honey crop in northern Colorado has been good. We quote our market in a jobbing way as follows: No. 1 white comb honey per case of 21 sections. \$3 o5; choice, \$2.88; No. 2. \$2.75; white standard, 8@oc: light amber, 7@Bc; strained. 6½@7c. We pay 26c cash, and 28c in trade, for clear yellow beeswax delivered here.

THE COLO. HONEY-PRODUCERS' ASS'N., Frank Rauchfuss, Mer.

Los Angeles, Sept. 15.—Since writing on June 30, quoting light amber honey at 6%c, we have received a good many offerings from the producers, and it is possible that the price named could be shaded an eighth of a cent per pound on firm offers.

HAMILTON & MENDERSON.

New York, Sept. 10.—The new crop of comb honey is now beginning to arrive quite freely; the demand is good for all grades, and we quote a fancy white at 16c, and some especially fine lots will bring 17c. No. 1 white at 14815c; No. 2. 13c; mixed, dark, and buckheat at 11812c per pound, Extracted is in fair demand. with sufficient supply of all grades excepting California sage. We quote white clover at 880%c, according to quality; light amber, 7½86; cyouthern in barrels, as to quality, 70c@80c per gallon. Beeswax steady at 32c per pound. HILDRETH & SEGELKEN.

An Active Season is Here!

A carload of perfectly new goods is just on hand from the factory, and another car is expected any day, and the factory has booked us for four cars. This brings up our assortment so that we can now furnish almost anything listed in the catalog at once.

Hives should be ordered at once if they are to be ready for swarms. Frames, and other inside fixtures, too,

should be put together now. If you are wanting any special goods, orders should be made at once. Other cars are coming regularly from the factory, and we can save you considerable in transportation charges by having your goods come with ours

in the car.

The mailing of our new catalog was completed some time ago. If you are not on our mailing list send us a postal-card request for this catalog. If you want to buy in quantities considerably larger than quoted in the catalog, give us a list of your needs

and we will quote price accordingly.

If you have never tried Root quality goods, make a beginning this season. You will not be disappointed in results. Our branch is maintained for service in this line and we can give it to your entire satisfaction. We are sole agents in Ohio for the Roller Tray Incubator and Brooder—the best in the market. Write for our catalog.

C. H. W. WEBER & CO.

2146 Central Avenue.

CINCINNATI.

оніо.





"If goods are wanted quick, send to Pouder."

BEE-SUPPLIES

EQUIPMENT Store room built expressly for the business; large concrete basement with just enough moisture to prevent breakage in sections; no shrinkage in dovetailed corners of supers and hives.

QUALITY Root goods at factory prices. The kind that I have sold for nearly a quarter of a century, and the kind that you can afford to recommend to your neighbors. I might have increased my profits for a short time by handling other goods, but I would not have remained so long in business. Many articles in my catalog can reach you by Parcel Post, and I assume all responsibility in safe delivery of the goods. Catalog free.

WALTER S. POUDER, Indianapolis, Ind.

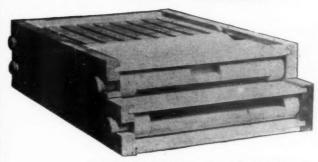
873 Massachusetts Avenue



The Robbers Disturb You When Feeding

Easy Solution, Use the

Schamu Patent Roller Entrance HIVE BOTTOM



No worry When you are ready, adjust for swarming, or drones.

Ask for a free folder

Proper Ventilation for Honey Flow.

PRICES: \$2.00 F. O. B. LIVERPOOL, FOR 8 FRAME SIZE. \$2.50 F. O. B. LIVERPOOL, FOR 10 FRAME SIZE.

Dr. Chas. G. Schamu,

Liverpool, N. Y.

Eastern Bee-Keepers

Furnishing bee-supplies has been our business for 22 years. We are also honey-producers, operating several hundred colonies for honey. We have started many people who have made a success of the business. We still furnish them their supplies. They stick to us. You will if you get acquainted. We advocate only practical articles. Let us mail you our catalog of what you may need.

I. J. STRINGHAM. 105 Park Place, New York City

APIARIES: Gien Cove, L. I.

Rebuilt Remington Typewriters (No. 6)

or Smith Premier Typewriters (No. 2)

Prices, \$30 to \$35. Send \$5.00 down and we will send the machine. **GREAT OPPORTUNITY.** Address,

Remington Typewriter Company (Incorporated)

325 Perry Street, Davenport, Iowa

English Honey-Spoon.



This fine ooc Honey-Spoon and the American Bee Journal for one year—both for only \$1.75. Send all orders to the American B Journal, Hamilton, Ill.

Bee-Supplies We are Western Agents for

"FALCONER"

Write for Fall Discounts—we can save

C. C. Clemons Bee-Supply Co., 128 Grand Ave., Kansas City, Mo.

PAGE - KENKEL MFG. CO.

Manufacturers

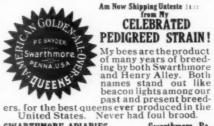
"NONE BETTER" BEE-KEEPERS' SUPPLIES

Thirty Years' Experience

Perfect sections from young, white, basswood. White Pine Hives and Supers, Excellent Shipping - Cases. Brood-Frames, Separators, etc. We invite your correspondence.

Page-Kenkel Manufacturing Co..

New London, Wis.



Am New Shipping Unteste 11::
from My
CELEBRATED

SWARTHMORE APIARIES, Swarthmore, Pa.

NO 1913 CATALOGUE! To keep up the old price I will avoid all expenses possible and will not print any catalog. I have some 1012 left. Order from your old catalog, or I will mail you one. you one.

you one. Best white pine hive 1½ story 8 frame, \$1.45; 10 frame, \$1.60 in lots of 5. Best sections per 1000, \$4.40; 2000, \$8.60; 3000, \$12.60; 5000, \$20; No. 2, 500 less. Plain 25c less.

H. S. DUBY, St. Anne, III.

DO YOU READ

PROGRESSIVE POULTRY JOURNAL?

It is published in Mitchell, South Dakota, and is a live paper devoted to the interests of better poultry and more of it. Has practical writers of experience in raising poultry Well illustrated. Send for free copy.

Progressive Poultry Journal Mitchell, South Dakota

NEW CROP HONEY and Pennsylvania

Especially

Write us. State quantity, quality, style of sections, when ready for shipment, etc. Will buy or handle on commission.

HILDRETH & SEGELKEN 265-267 Greenwich St., New York, .

SYRACUSE

CHICAGO

de la laction de la company de

BER O ES

NEW YORK

BALTIMORE

CANONSBURG

CONTINENTAL CAN COMPANY

INCORPORATED

HONEY CANS

All Styles-All Sizes

Friction Top
Boxed Square Cans
60-Pound Shipping Cans

HONEY PAILS

Sales Offices: 72 W. Adams Street, Chicago 616 W. 43d Street, New York City

DADANT'S FOUNDATION

Send for our prices

BEESWAX

We are paying higher prices than ever before at this season.
Why? Because of the tremendous demand for

Dadant's Foundation

Write at once. We will quote you F. O. B. here or F. O. B. your Station, whichever you desire

DADANT & SONS,

THE ELECTRIC PROPERTY HAMILTON FIELINOIS ! I COMPARED